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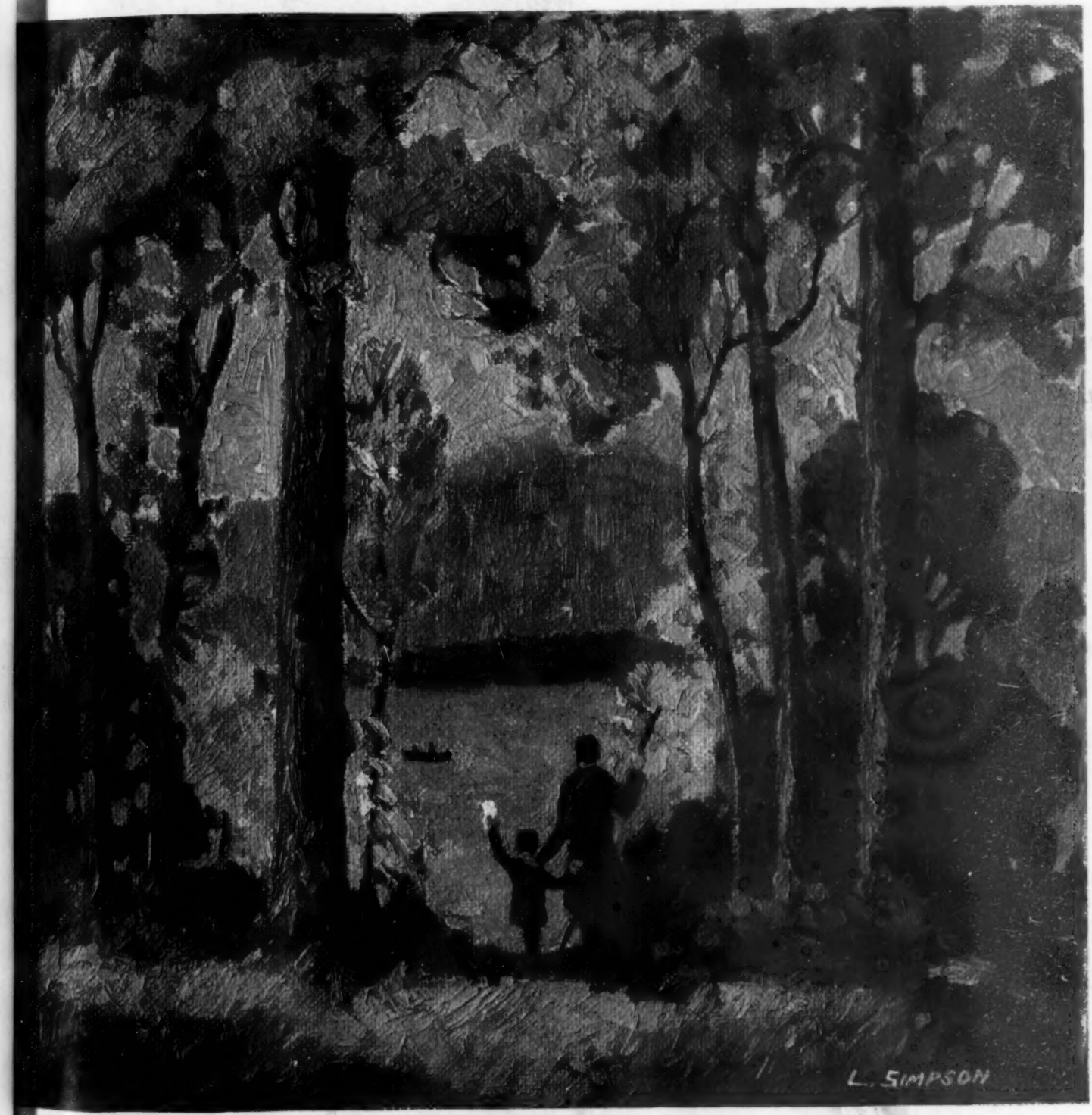
HYGEIA

THE HEALTH MAGAZINE

Published by the American Medical Association



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Published by the American Medical Association
535 North Dearborn Street, Chicago

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L. Simpson

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Contributors to This Issue

A SURGEON from California, DR. NORMAN J. KILBOURNE, sends out a pertinent warning on a subject that is causing physicians increasing concern, the use of laxatives for "pain in the stomach." What we eat and why we eat it is discussed by DR. JULIUS FRIEDENWALD, a Baltimore physician.

DR. WILLIAM M. GARDNER, Cleveland dentist, explodes another set of fallacies about teeth in his second article. RALPH DEMAREE, a physicist of Pasadena (Calif.), tells what really ingenious parents can do about cod liver oil. The name of GEORGE H. DACY is known to HYGEIA readers from previous articles on sports.

From the University of Pennsylvania comes DR. CHARLES W. BURR's consideration of mental disease in youth. Two series continue, that of DR. FRANK HOWARD RICHARDSON and that of DR. J. A. MYERS. DR. ARTHUR J. CRAMP, director of the bureau of investigation of the American Medical Association, presents this month an article on medicines foisted on sufferers from rheumatism.

Again DR. W. B. WOLFE, formerly associated with the International Journal of Individual Psychology, writes of the psychologic handicaps of childhood. DR. F. A. LYON is connected with the hospital for tropical diseases of which he writes. DR. PHILIP S. POTTER lives in Berkeley, where he observes the Sunshine School in action.

The author of the article on hearing defects, DR. WENDELL C. PHILLIPS, is president of the American Federation of Organizations for the Hard of Hearing and a former president of the American Medical Association.

As a student of agriculture at the University of Nebraska, EMIL GLASER has made special studies of poultry. DR. L. D. HUBBARD is remembered as the author of many articles in HYGEIA on the mental patient.

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WILLIAM CRAWFORD GORGAS

"Take a good look at this man, boys, for it's the last case of yellow fever you will ever see. There will never be any more deaths from this cause in Panama."

Health Almanac

OCTOBER, 1928

1 THE GOLF STICKS now lie still and rust;
The sky is dull and gray and sober;
This is the time for pollen dust;
Come on, first frost; this is October!

2 THERE ARE TWO deadly places for fat—in the head and in the heart.

3 WILLIAM CRAWFORD GORGAS, born, Oct. 3, 1854, died, 1920. He freed Panama and the Canal Zone from the scourge of yellow fever.

4 THERE ARE AS MANY causes of headache as there are organs and tissues in the human body.

5 EDWARD LIVINGSTON TRUDEAU, born, Oct. 5, 1848, died, 1915. He is revered as the great American pioneer in the war against tuberculosis.

6 IT SEEMS HARD to believe that love is merely the increased function of a few glands.

7 I DESIRE to correct a mistake into which I fell when investigating the fermentation of milk some years ago; for next to the promulgation of a new truth, the best thing, I conceive, that a man can do is the recantation of a published error.—Joseph Lister, 1878.

8 I MAKE not therefore my head a grave, but a treasure of knowledge.—Sir Thomas Browne.

9 THE PATIENT is most interested in prognosis, but prognosis is the least scientific of all the things the doctor can tell him.

10 THIS DAY, by the blessing of God, my wife and I have been married nine years; but, my head being full of business, I did not think of it to keep it in any extraordinary manner.—Samuel Pepys' Diary, Oct. 10, 1664.

11 THE MAN who suspects every one else will usually bear a little watching.

12 AGAINST DISEASES here the strongest fence
Is the defensive virtue, abstinence.—Herrick.

13 RUDOLF VIRCHOW, born, Oct. 13, 1821, died, 1902, was one of the great founders of modern pathology—a student of the changes wrought by disease in the body of man.

14 A HEART at ease, Yorick, flies into no extremes—'tis ever on its center.—Laurence Sterne.

15 THE ONLY MARK of modern science on some people is their vaccination mark.

16 ON OCT. 16, 1846, ether was first administered in a surgical operation in the Massachusetts General Hospital.

17 DISEASES desperate grown
By desperate appliance are relieved
Or not at all.—Shakespeare.

18 THE DROWNING CANDIDATE grasps at a straw vote.

19 ALL NUTRITION WORK, to be worthy of our present knowledge and opportunity, must stand four-square upon equal recognition of calories, protein, mineral elements and vitamins.—H. C. Sherman.

20 THE PART OF AN AUTO that causes more accidents than any other is the nut that holds the steering wheel.—Anon.

21 NEW CUSTOMS, though they be ever so ridiculous—nay, let them be unmanly—yet are followed.—Shakespeare.

22 NOWADAYS when a person with a bottle says "Take a drink of this, it will straighten you out," it is possible that he is right.—Detroit News.

23 TO PROMOTE HEALTH in the individual, the family and the community should be the constant aim of every good citizen in the American democracy.—Charles W. Eliot.

24 IT IS QUITE FEASIBLE everywhere, by proper drainage, to eliminate entirely the anopheles mosquito.—W. C. Gorgas.

25 IT IS GOOD to respect old thoughts in new books because the old works in which they stand are not read.—Richter.

26 ON A RECENT VISIT to a hospital for the insane it was impossible to find one woman wearing furs with the thermometer over ninety or one man drinking whisky of unknown ancestry.

27 THE MOST INCONSISTENT spectacle in the world is a woman who does not believe in a material body buying rouge for her cheeks and peroxide for her hair.

28 THERE ARE a good many real miseries in life that we cannot help smiling at, but they are the smiles that make wrinkles and not dimples.—Oliver Wendell Holmes.

29 JOHN KEATS, a renowned poet, trained as a physician, was born, Oct. 29, 1795.

30 A WELL BALANCED MIND is the best remedy against affliction.—Plautus.

M. F.

31 OCTOBER turned my maple leaves to gold;
The most are gone now; here and there one lingers;
Soon these will slip from out the twig's weak hold,
Like coins between a dying miser's fingers.—Aldrich.

DANGERS IN SELF-DOSING

By Norman J. Kilbourne

IF YOU had a severe pain in your "stomach," what is the first thing you would do? Probably you would do the same thing that most Americans do—go to the family medicine closet, get the castor oil bottle, and, with much lemon juice and a pinched nose, take a good-sized dose. In some instances you might be doing the proper thing, but in cases in which there is pain in the abdomen this procedure is always dangerous and often fatal. In order that you may realize how this may be possible, I am going to tell you three stories.

The first story is one that the physician hears over and over again. Mr. Smith was awakened during the night with a violent pain in the region of his stomach, which became increasingly severe. Four hours later, in the early morning, he vomited. He remembered that he had had some canned tomatoes for his dinner and decided that he had acute indigestion.

The Neighbors Take a Hand

Late the next afternoon his wife called the woman manager of the apartment house in which they were staying. The manager looked very wise and said that she knew it was ptomaine poisoning from the canned tomatoes and that what Mr. Smith needed was castor oil. She went to the family medicine closet, took down the bottle of castor oil and gave him a generous dose. The pain became worse. Late in the night he felt so sick that the family doctor was summoned.

The physician examined Mr. Smith and told him that his condition was serious and that it was necessary to call in a consultant. The family doctor and the consultant had a talk and returned to tell Mr. Smith that he had a severe attack of appendicitis.

Mr. Smith was amazed. He told the doctors that he knew it could not be appendicitis because his pain had started in his stomach. As he had heard that the appendix was down on the right side, he was sure that what he had was acute indigestion. Mr. Smith, however, was in pain and finally was persuaded to go to the hospital.

The High Cost of Castor Oil

At the operation it was found that the appendix had ruptured, and it so happened that the surgeon found castor oil spurting out through the hole in the appendix. As a result of the rupture of the appendix, peritonitis developed, and Mr. Smith's life was saved only through the best of surgical skill. He eventually recovered after undergoing the loss of several weeks from his business and the expense of a large hospital and medical bill.

In this case, what occurred is what happens in thousands of American families every year. A simple case of mild appendicitis is turned into a fulminating attack with eventual rupture of the appendix by the ill advised use of castor oil. Mr. Smith's intentions, and those of his adviser, were good, but what had been needed was not good intentions but information on the deadly effects of castor oil or any other cathartic in cases of appendicitis. That ounce of castor oil nearly cost him his life and set the Smith family back almost a thousand dollars. This was merely another case of the supposedly high cost of medical care, when in reality it was a case of the high cost of a dose of castor oil.

At the present time the high mortality rate in America from appendicitis is almost entirely preventable. Two important causes are, first, the use of self-administered cathartics in cases of abdominal pain; and, second, delay in calling a doctor.

Mrs. Smith Meets Disaster

Another story is typical of thousands of disasters occurring every day in America because of the ill advised use of castor oil. Mrs. Smith had had a necessary operation a few years before but had been fairly well save for occasional constipation. For three days she had been constipated, and pain in the abdomen began to torment her. The pain became severe, and she vomited. She was sure that she would feel better if her bowels moved, so she went to the family medicine closet and took a large dose of castor oil.

Following the taking of this medicine, the pains in her abdomen became increasingly severe, and, in agony, she sent for the doctor. The doctor was obliged to take Mrs. Smith in a weakened condition to the hospital. A diagnosis of intestinal obstruction was made. Immediate operation saved Mrs. Smith's life, but only after weeks of illness during which she hovered between life and death.

This was another case in which a well intentioned person nearly committed suicide by the careless use of a purgative. The only reason that her life was saved was that the family doctor acted promptly. Had Mrs. Smith had less confidence in his judgment and demanded a postponement of the operation, she certainly would not have survived.

The sad part of the story is that the desperate illness was probably unnecessary. What Mrs. Smith had had was a partial stoppage of the bowels, known to the medical profession as an incomplete intestinal obstruction. Under appropriate medical treatment this would probably have subsided. However, the dose of castor oil caused the last added insult to an already injured member and created so much swelling around the partial obstruction that total obstruction ensued.

Thousands of cases exactly like this are occurring every day among intelligent people who believe that they are saving money by not calling a doctor, and that they know enough about medical matters to dose themselves.

Before closing this record of disasters, I wish to tell one more story, more cheerful. The Smith's oldest boy, about 8 years old, became constipated. His mother gave him milk of magnesia, but this did not work. Then she gave him some pills, but they did not work. Then she gave him salts, but that did not work. Then she gave him a man-sized dose of castor oil, but that did not work. He continued to have no bowel movement. Then he began to vomit and kept on vomiting.

Finally the family doctor was called. He knew all about the Smiths and, by his long experience with their habits, was immediately able to diagnose the trouble. He did not listen to the excited protests of the Smiths that their boy had had no bowel movement for four days and that something radical must be done.

Rest and Quiet Better than Medicine

The doctor did not prescribe medicine but put the boy in a darkened room, with no visitors. In this absolute quiet the boy fell asleep for the first time in two days. He slept soundly for five hours. When he awoke he had a copious bowel movement. After that, he was all right.

In this case the doctor, through his long experience with the family, knew that the obstinate constipation in the young boy was due entirely to excessive nervous strain accentuated by the nervous excitement of the rest of the family and aggravated by the use of violent cathartics. Instead of making the bowels act, the purgatives had caused them to contract in spasms. There was no operation and there was no medicine; there was simply rest and relaxation obtained after the doctor had diagnosed the real cause of the trouble.

Salts, magnesia solutions, liver pills, dynamite pills, and a host of other cathartics may do the same harm as castor oil, and it should be remembered that in cases of severe abdominal pain they may be just as bad for you. In this article castor oil has been mentioned because it is typical of these abused medicines. Keep it in the medicine closet if you will. There are times when it may be used; but many lives will be saved if American people can realize that they are handling a dangerous weapon when, without adequate medical counsel, they attempt to cure abdominal pain by taking castor oil.

The FOOD We Eat

By Julius Friedenwald

FOOD is the material taken into the body to supply heat and energy, to build up the body and to repair tissue waste. When the complex food forms are broken up into simpler compounds the products set free are used by the body as energy or are converted into heat. The excess not immediately utilized is stored up in the body, usually as fat beneath the skin or as a forerunner of sugar, known as glycogen, in the liver and muscles.

The energy is liberated by changes that are similar to the burning of fuel in a furnace, the difference being that the changes in the body are far more complicated, since the human body is a much more efficient furnace than any that has been devised by man. All the structures of the body are built up by material taken into the body as food. Then the wear and tear of the body requires continual repair of tissues, and the material for this process likewise comes from the food. Food as it is taken into the body differs much in composition from the substances that are utilized by the tissues in growth and repair. It is prepared for use by the process of digestion.

Food consists of either animal or vegetable matter. Some nations live principally on an animal diet while others live mainly on vegetable material, which indicates that human beings can exist either on vegetable or animal food alone. It is generally admitted, however, that a mixed diet is the best for human existence. It has been shown that nations that subsist on a mixed diet of both animal and vegetable food have accomplished most in the way of progress.

Foods are divided essentially into six simple classes, known as protein, carbohydrates, fats, mineral matter or salts, vitamins and water. Proteins are complex substances and include principally meat, white of egg and curd of milk, though they are found to a lesser degree in vegetables. They are necessary for life and repair of the body, supplying energy and heat. If proteins are not supplied in sufficient quantity the body will waste away and a condition of malnutrition will appear.

Carbohydrates include starch, sugar and vegetable fiber. They are burned in the body and are the most important source of heat and energy. Any excess over the body needs is converted into fat and stored up in the body.

Fats are known to every one in the form of cream, yolk of eggs, olive oil and lard. They serve the same purpose as carbohydrates. They supply more heat and energy than carbohydrates, but they are not so easily digested. The superficial fat of the body protects it from cold and acts as a storehouse for the fat that can be converted into heat and energy. Fats are found in both animal and vegetable food.

Mineral matter forms about 6 per cent of the weight of an adult man. It is present in the bones, teeth and other tissues and is necessary to life and health.

Vitamins are substances of unknown composition existing in minute quantities in natural foods and are necessary to normal nutrition and growth. If any of these are insufficient in the diet certain definite disturbances occur in the body. These changes may be overcome by adding to the diet foods containing the missing substances, provided the alterations in the body have not progressed too far. It is extremely important to watch this factor in the diet of growing children.

Water enters into the composition of every tissue in the body and forms more than 60 per cent of the entire body weight. It is not burned, however, and so does not supply any energy.

The quantity of food required necessarily varies under special conditions. An adult requires more than a child; a man at work more than one at rest; a woman less than a man; an emaciated person less than a robust one. The selection of a proper diet depends on a knowledge of the amount of proteins, carbohydrates, fats and vitamins necessary to maintain the body at the proper weight and strength.

It has been found that a grown person uses up each day and therefore requires: 120 Gm. (4 oz.) of protein, 500 Gm. (17 oz.) of carbohydrates and 60 Gm. (2 oz.) of fat, as well as from 2½ to 3 quarts of water. When food is burned in the body a certain amount of heat is developed; this is calculated in terms of heat units known as calories.

An adult requires about 2,500 heat units or calories each day when performing a moderate amount of work. If he works hard he requires 3,000 calories or more.

Meals Should Be Regular and Varied

In order to have the food available for digestion in the stomach, it must be thoroughly masticated. Meal times must be ordinarily regulated so that from five to six hours intervenes between meals. The practice of habitually omitting the noon luncheon should be discouraged. In order thoroughly to satisfy the needs of the body, the diet must be varied. A person will digest a larger proportion of nutrients with a mixed diet than with a diet composed of a single food.

Appetite, which is the desire for food, plays an important rôle in regulating the quantity that may be absorbed. It is controlled by the sensation of hunger and is often induced by the sight, smell and taste of food. The appearance of a badly prepared or improperly served meal will often dispel the appetite.

The temperature of food is of considerable importance. The ideal temperature is that of the body, from 98 to 100 degrees F. Extremes of temperature are apt to give rise to stomach upsets.

It is advisable to rest but not to sleep after meals. The larger part of the work of the stomach should be completed before one retires at night; otherwise, the sleep is apt to be disturbed. About one or two hours should be allowed to elapse between a light evening meal and bedtime and three or four hours between a heavy meal and sleep. Severe mental strain and strong emotion disturb the digestion. On this account food should not be taken until a period of rest and composure has intervened. On the other hand, pleasurable sensations aid the digestion and pleasant conversation at the table is therefore to be encouraged.

Food absorption takes place chiefly in the small intestine. From an ordinary mixed diet an average of 92 per cent of protein, 95 per cent of fats and 97 per cent of carbohydrates is absorbed into the body. From the small intestine the unabsorbed residue passes into the large bowel. The food upon which most people live, consisting of cereals, meats, butter, sugars, fats and oils, is almost completely digested and absorbed. The normal diet should, however, contain an adequate amount of bulky, residue-containing foods to insure natural movements of the bowels. The residue foods are the vegetables and fruits, which should be consumed in fairly large amounts by persons who have a tendency to constipation.

Cooking of food is an art practiced by all races, savage as well as civilized. Food is cooked to improve its flavor, to soften it so that it can be thoroughly masticated and more easily digested, and finally to destroy all parasites and germs that may be present in the raw state. Cooking develops certain flavors, which increase the appetite and the taste for the food. Cooking moreover destroys the tough fibrous envelops that surround many foods, thus permitting the foods to be more easily acted on by the digestive fluids.

Should Avoid Overeating and Undereating

Disturbances of the body may be caused by taking too little or too much food, as well as by a diet that is badly balanced. It may also be caused by poisons, by disease germs or by parasites taken into the body with food and drink.

The conditions due to insufficient food are starvation, malnutrition and some forms of anemia. There can be no question that many persons cannot lead normally active lives because they do not consume sufficient food. It is frequently difficult to convince an undernourished person that the body is a machine, which requires fuel for its work. Many such persons go on for years, progressively losing flesh and attempting to overcome the disability

by the use of drugs, without fully realizing that they are suffering from malnutrition, which might be corrected by means of proper feeding. Patients who are seriously undernourished cannot always be given ample diets at once because the digestion has become disturbed.

The most frequent conditions caused by overeating are obesity, gout, diabetes and kidney and liver disturbances. The great majority of obese persons have gained weight because they consume too much food and exercise too little.

A diet consisting mainly of food of low carbohydrate and fat content, such as vegetables, fruits, lean meat and skimmed milk, is usually recommended to bring about the requisite loss of weight. According to life insurance statistics, persons who are either 20 per cent above or 20 per cent below the weight accepted as normal for their age, sex and height are not to be considered as good insurance risks.

Diet plays an important part in the cause and cure of disease. Most prevalent are diseases of the stomach and intestines. The function of digestion should normally be carried on without discomfort or inconvenience. Fulness, distention, pain, flatulency and other discomforts that frequently follow the taking of food are generally included under the general term of dyspepsia.

In many instances the dyspepsia is due to a want of proper mastication. Many persons' teeth are so poor that proper mastication is impossible, or they swallow their food hurriedly without taking time or trouble to chew it properly. The result is that little saliva is secreted; starchy food, which should normally be digested by the saliva, passes into the stomach unchanged; and the protein foods, which should be digested in the stomach, are imperfectly broken up and are thus more slowly acted on by the stomach juices. The first link in the process of digestion is thus disturbed and in consequence other disturbances follow.

Under normal conditions the appetite may be considered a fair indicator of the quantity of food a person requires. In cases of dyspepsia, however, the patient loses his appetite and consequently often loses flesh and strength. In these cases one need only remember that a patient resting quietly in bed requires considerably less food than when he is not resting.

When it is necessary to spare the stomach as much as possible, liquid food alone should be taken for a time. Of liquid foods, milk is the most nutritious and most easily assimilated. For the rare persons who cannot drink milk, buttermilk or malted milk may be substituted; soft food may be added after a time and finally light solid food.

Among the chief disturbances associated with the digestive tract nowadays is constipation. It might safely be estimated that more than half the population of this country requires a certain amount of aid to produce evacuation of the bowels. Constipation can be overcome in many instances by consuming certain foods that leave sufficient residue in the bowels to stimulate intestinal movements. A glass of water taken before breakfast will often regulate the bowels; at times salt added to the water will increase its efficacy; raw and cooked fruits taken morning and evening occasionally give good results in relieving chronic constipation.

It should not be forgotten that constipation is frequently induced by the persistent use of cathartics. Therefore the use of drugs should be avoided as far as possible in the treatment of this disorder. Sedentary habits often cause constipation and for this reason every one should take proper exercise. The vegetables that are useful in the treatment of chronic constipation are spinach, peas, cauliflower, cabbage, asparagus, lettuce, onions, celery and tomatoes. Cereals that stimulate intestinal movements are oatmeal, corn meal, graham, rye and corn; whole wheat and bran breads are useful. Other foods classed as laxative are fruits, cider and honey.

Diet in Cure of Disease

Among the diseases in which diet is important is diabetes, sometimes called "sugar disease." The severity of this condition may be greatly lessened by intelligent attention to feeding. In this disease the capacity to use sugar is lessened. A certain amount of sugar can be utilized, but when the patient exceeds this amount the excess is passed off from the body in the urine. The problem in diabetes is to keep the patient within such limits of carbohydrate intake that sugar will not appear in the urine, and at the same time to supply sufficient food to take care of the body needs. In certain patients this cannot be brought about by dietetic restrictions alone, and for these there is insulin, an extract from the pancreas, which increases toleration for sugar.

The value of diet in the cure of disease is well illustrated in the treatment of severe forms of anemia, especially in the serious type known

as pernicious anemia. A diet rich in liver substance has been found to have a marked tendency to overcome the anemia and bring about marked improvement in the patient's health. The liver, which may be from calves, beef or chicken, acts as a blood building food.

A few words of warning must be directed to the so-called dietary fads so prevalent today. In some instances too great a benefit, in others too deleterious an effect is attributed to special forms of foods without the slightest scientific justification. The vegetarian is of the opinion that meat is poisonous, deadens the moral faculties and may even produce cancer. Other faddists believe in restricting one's bread to whole wheat alone, while still others are advocates of depending almost exclusively on a fruit diet to maintain good health.

The modern study of dietetics has taught us to be cautious in drawing conclusions as to the value of foodstuffs. No single form of food should be considered healthful or harmful, the greatest variety being most conducive to strength and good health.

It is well to remember that the food we consume bears a distinct relationship to our usefulness and in consequence to our happiness. It is important therefore for us to become as familiar as we can with the important problems relating to our diet.

Dental Superstitions

By W. M. Gardner

Part II

XIII

That there is no sense in going to a dentist if the teeth do not hurt.

The wisest plan to adopt concerning one's teeth is that of prevention. It is poor policy to wait until an aching tooth drives one to a dentist. If a tooth aches it usually means that the decay has penetrated far into the tooth and that the acid formed by bacterial fermentation is causing a chemical irritation to the nerve. In some instances the bacteria have already infected the nerve. In many cases such a tooth can no longer be made comfortable except by the removal of the nerve. In the light of recent researches this is a questionable procedure. It is much better to make periodic visits to a dentist. In this way cavities are discovered early and can be easily and in many instances painlessly taken care of. The larger a cavity the more skill is required to place a filling and the less permanent the filling will be.

XIV

That the nerve in a tooth is made up of nerve tissue only.

The nerve of the tooth is really made up largely of a network of blood and lymph vessels, which keep the tooth alive and healthy. Nerve fibers make up only a small portion of the nerve. A much more accurate term is "pulp."

XV

That pain during drilling means that the dentist is grinding on the nerve.

There are two very sensitive areas in the tooth, one superficial, the other deep. The superficial sensitive area is directly under the enamel or at the point at which the enamel meets the dentine, as shown in the illustration; the deep sensitive area is the dentine immediately over the nerve. Drilling, then, may cause pain without necessarily being close to the nerve.

XVI

That when the nerve is taken out of a tooth all trouble with that tooth is over.

Before the advent of the x-ray this was the belief of the dentist. The x-ray, however, showed that in many of these teeth a chronic abscess formed at the end of the root. From these abscessed areas the bacteriologist was able to grow bacteria which, when injected into animals, produced disease. Later he was able to grow bacteria from teeth that had the nerves removed but did not show an abscessed condition in the x-ray picture. These bacteria also produced disease. The removal of the nerve from a tooth, then, makes it a potential source of danger to health. Teeth with healthy nerves do not abscess or become infected.

XVII

That if a tooth does not hurt it must be healthy.

The tooth from which the nerve has been removed may be comfortable yet show a definitely abscessed condition on an x-ray plate. The formation of the abscess may be slow and may cause no pain. It is a chronic condition rather than an acute one. As an analogy, in the case of chronic tuberculosis there may be an extensive involvement of the lung without pain. The deleterious effect from a chronic tuberculous lesion in the lung to the whole system cannot be denied. Pain is not the only criterion of disease.

XVIII

That when a gum boil disappears the tooth that caused it is well again.

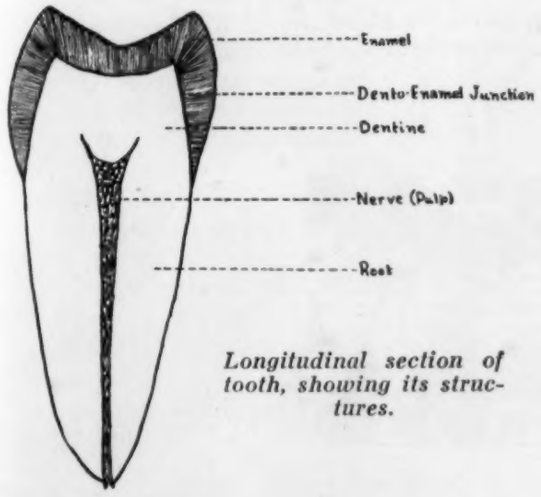
When the nerve in a tooth dies as a result of decay, a large metallic filling or a blow, the nerve becomes infected and breaks down. Gases and pus are formed, which cause pain and swelling. If a dentist does not establish drainage through the root canal of the tooth, nature establishes drainage by breaking through the bone and gum tissue. This is the gum boil.

After the acute stage of the process is over the tooth gradually becomes comfortable and the gum boil in many cases disappears. The tooth, however, still remains infected. The process has only become chronic. Drainage of the infection, instead of being into the mouth, now is into the system. The tooth, therefore, is more of a menace than before. It is a source or nest of infection (usually referred to as a focus of infection) from which bacteria are seeded into the blood stream to attack various parts of the body and set up disease there.

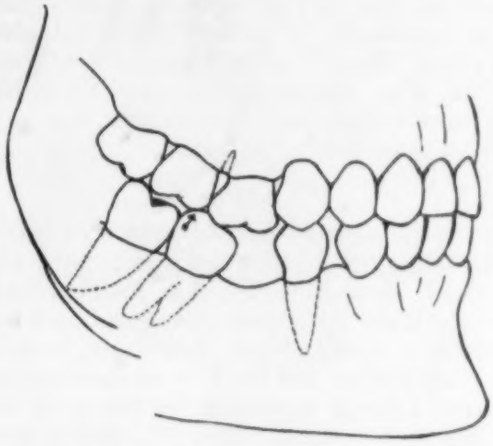
XIX

That the size of the abscessed area around a root determines the amount of trouble the tooth is causing systemically.

The x-ray reveals the local reaction to the infection and the results from it rather than the infection itself. It can tell us nothing of the infecting power of the bacteria present. In many cases a pulpless tooth that shows little or no abscessed condition by x-ray is a decided factor in the production of systemic disease. On the other hand, a patient may have a tooth with a large abscess for a long time without any apparent systemic disease.



Longitudinal section of tooth, showing its structures.



This sketch shows the unfavorable results arising from loss of the first molar, not replaced by bridgework.

XX

That after the extraction of a tooth for systemic reasons, the trouble will clear up immediately.

The removal of a tooth means only the removal of the exciting cause of the abscess. While much of the infection that resulted from the tooth may be curetted out at the time of the extraction, all of it cannot be removed in this way. Elimination of the cause, however, will allow the surrounding tissues to take care of the infection and bring about repair.

In many cases there is an increase in the symptoms of body affection for a few days following the extraction. The defense mechanism which in some measure is usually thrown up around these areas is interfered with by the extraction and more bacteria enter the blood stream for a few days than before the extraction. A reorganization of the defense mechanism will cause the exacerbation to subside in a few days. Because of this systemic reaction it is advisable to have only one or two infected teeth removed at one time, so that the exacerbation will not be too severe.

XXI

That the removal of infected teeth will cure all diseases to which human flesh is heir.

Though the fact that infected teeth cause systemic disease has been established both clinically and experimentally, it must not be assumed that the removal of infected teeth is a panacea for all ailments. Even in diseases that are

known to originate because of focal infection, the removal of infected teeth often fails to effect a cure. Diseased tonsils or sinuses, a diseased gallbladder, appendix, prostate gland, or colon may harbor the same type of organisms found around infected teeth with the same disease-producing power. To extract teeth without the removal of these other sources of infection, if they are diseased, of course courts failure. In some cases, too, the extraction of teeth comes too late. The secondary site of disease has so firmly established itself that return to a healthy condition is no longer possible.

XXII

That all gold crowns are a menace to health.

The gold crown in the past was usually placed on a tooth that had had the nerve removed. Sooner or later it became abscessed and had to be removed. Gold crowns have also been carelessly constructed and because of their inaccuracies have caused irritation to the gum tissue, resulting in pyorrhea. It is the abuse, not the use, of a gold crown that is a menace to health. A well constructed gold crown placed on a vital tooth is a valuable means of restoring a badly broken-down tooth.

XXIII

That after an extraction the wound will heal better if the mouth is frequently rinsed with mouth washes.

Nature's way of healing the socket is to form in it a good blood clot through which later tissue organization and healing will go on. The frequent use of mouth washes interferes with the formation of the clot. The mouth wash used can have little beneficial antiseptic action on the socket, because it cannot penetrate to the end of the root area where the infection exists. Nature provided a means of taking care of this long before mouth washes were thought of.

XXIV

That teeth that have been extracted need not be replaced, because bridgework is insanitary.

Each tooth in the mouth must be considered an important cog of the masticating machine. The loss of a tooth without proper replacement impairs the efficiency of the machine. It also institutes irregularity and disease. Undue stress placed on the remaining teeth, with a subsequent drifting and shifting, produces a wrong bite and sows the seed for the development of pyorrhea, as is shown in the illustration. New principles of bridgework intelligently applied disprove the belief that bridgework is insanitary. If properly constructed, a bridge can be cleaned as readily as the remaining teeth in the mouth.

XXV

That the dental office is a torture chamber.

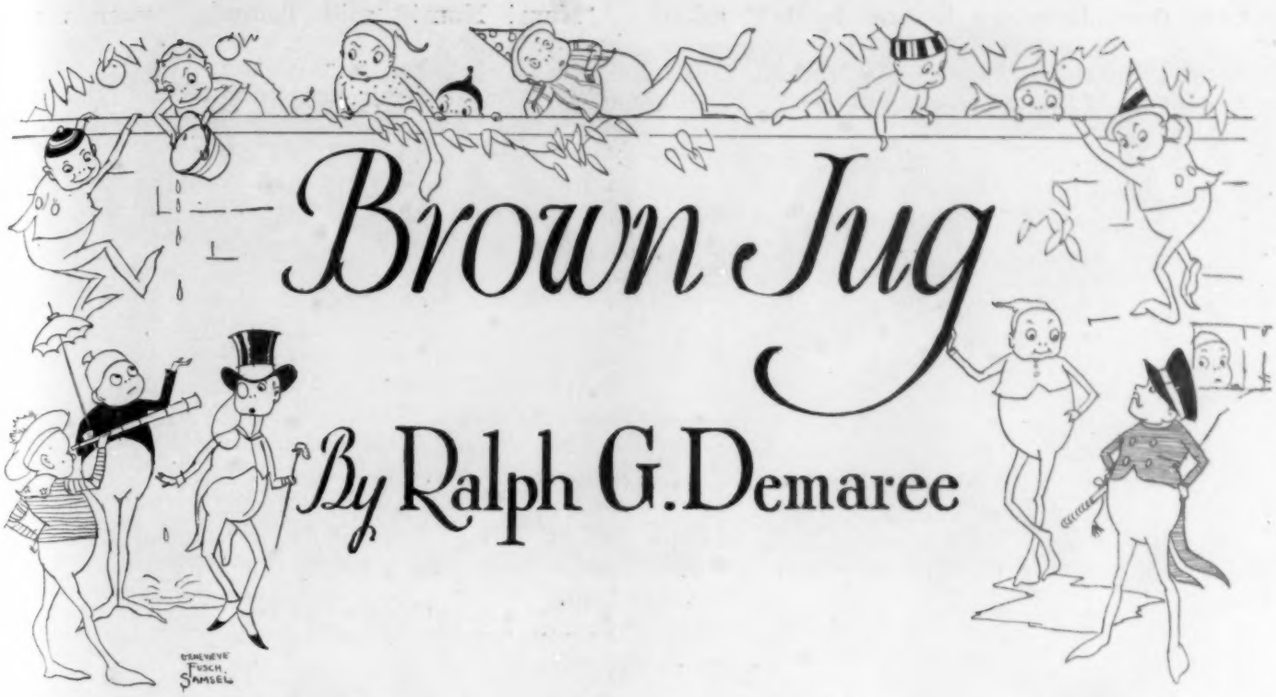
Many a good set of teeth has been sacrificed on the altar of fear. When toothache finally drives a patient to a dental chair, he comes with fear and trembling. Usually an unpleasant early experience is at the basis of the fear. In the hands of a capable dentist teeth are extracted without pain, either by means of a local or a general anesthetic. Cavity preparations for fillings can be done just as painlessly if the tooth is first anesthetized with procaine. While in the earlier days of dentistry pain was usually inflicted during dental operations, progress during recent years has made it possible to eliminate all pain from dental operations by the intelligent use of anesthetics.

XXVI

That a dentist should be consulted only when there is need for an extraction or for fillings.

The prevention of dental trouble is a much more important function of the dentist than the correction of defects. Instruction of the patient in mouth hygiene, helping him keep his mouth in a healthy condition, detecting and correcting early faults by frequent examinations is the ideal toward which a dentist strives. He has been discouraged in the past by the fact that the public which is willing to spend a hundred dollars for a bridge usually is not willing to pay a thin dime to be shown how to prevent the necessity for a bridge.

It is hoped that by education the public will reevaluate its ideas as to what constitutes the greatest service a dentist can render.



Brown Jug

By Ralph G. Demaree

WHEN you were a little tot and had just reached that stage of being much interested in picture books, did you happen one day to discover Palmer Cox's brownies? If you did, you must have had one of the greatest thrills of your life. Do you remember the helmeted policeman with his club, the sailor boy, the Indian, and the funny little Englishman with his plug hat and monocle, his walking stick and flying coat tails, who was always falling off the hobby horse or getting mired up in the mud? A most unfortunate fellow, the Englishman. And there were dozens of other brownies, equally funny, equally industrious and universally kind and helpful. They were always having jolly times and helping everybody who needed help; and thereby hangs the tale of the brown jug.

. . . . . .

Dr. Macklin said Daddy needed some cod liver oil to help him get well and strong again. "It would be a good idea," he said, "to let the boys have a little, too, after each meal."

The next day a big brown bottle was put on the table at Daddy's place.

"Daddy, what is that?" asked Tommy, 3 years old.

"Is that medezin?" asked Ralph, aged 5.

"Not exactly medicine," replied Daddy.

"Is it good?" Tommy wanted to know.

"I haven't tasted it yet," Daddy replied.

"May I taste it?" asked Ralph.

"I'll tell you what we'll do," said Daddy. "Ralph and Tommy may each take a little taste, and then if it's good, Daddy will take a spoonful." Daddy put a few drops on the tip of a spoon and held the spoon for Ralph to taste. "If it's good say, 'Yum! Yum!'" Daddy suggested.

"Yum! Yum!" said Ralph, but his face was all in a pucker.

Next a few drops on Tommy's spoon. "Num! Num!" said Tommy. "Let me have a bite of bread, please, Mother, right quick!"

So it went on for a few days; then Tommy said, "Ralph, you can taste it for Daddy today. I don't like it so very well."

A jug of bottled sunshine.

"So that's that!" thought Daddy, and set his wits to work again. The chance came at the next meal.

"Daddy," said Ralph, "why is the cod liver oil bottle brown?"

"I suppose," said Daddy, "it was made brown to keep the sunshine out. They call it 'bottled sunshine,' so it may be to keep the sunshine in. I don't know."

"The brownies run away when the sun shines," said Ralph.

"Then this bottle would be a fine place for brownies to hide, wouldn't it?" asked Daddy. This sudden inspiration might solve the difficulty.

"Are there brownies in that bottle?" asked Tommy. "Oh, goody!"

"Liquid brownies!" exclaimed Mother. "What a fine idea! Liquid brownies! Brownies in a brown jug!"

"Pour some out," said Ralph; "I want to see a liquid brownie."

"I want to see a liquee brownie, too," cried Tom.

"Bring your spoons, boys," said Daddy. "Now, Ralph, which brownie shall I pour out for you? Which is your favorite in the book?"

"The sailor boy," Ralph replied. "I'm always the sailor boy in the pictures."

"And I'm the pleeceman," cried Tommy. "Please give me the pleeceman, Daddy."

"Yum! Yum!" said Ralph.

"Num! Num!" said Tommy.

"Here, Tommy," said Mother, "you left the policeman's club in the spoon. One more little taste."

"Num! Num!" said Tommy, "where's my bread?"

. . . . . .

"We forgot to put something on the table this morning," said Mother one day. "Who can remember what it is?"

Ralph and Tommy looked over the table. Daddy scratched his head.

"The one who thinks of it first may slip out to the kitchen and get it," said Mother.

Ralph got up solemnly and went out. On his return he stopped just outside the swinging door of the kitchen and asked, "Who knows what this spells?" and then, rather laboriously, called off the letters, "C-O-D L-I-V-E-R O-I-L."

"Brown jug!" cried Tommy in triumph. "I know! Brown jug! Brown jug!"

. . . . . .

MORAL: There are more ways of cutting a boy's hair than running the lawn mower over him.

Good Milk Is Community Problem

THE milk business is in reality a community business and unless the people of the community work together for good milk they will never get it. This was the statement of Dr. W. F. King in an article in *The Journal* of the American Medical Association urging the adoption of standard milk ordinances.

That the public is entitled to clean wholesome milk goes without saying. It is well known that tuberculosis and septic sore throat may be transmitted from the cow to the consumer. Carelessness on the part of those who handle milk may cause the milk to become contaminated with the germs of typhoid, with the infection of scarlet fever or of diarrheal diseases, Dr. King continued.

A comparatively recent peril that has arisen in relation to milk supplies is the spread of the disease of cattle known as contagious abortion. A relation has been found between the germs of this disease of cattle and those causing undulant fever in human beings. Cases of undulant fever have been found in various localities in which dairy herds were found to be infected with the *Brucella abortus*. Plans for protecting the public from milk of cows infected with contagious abortion are therefore occupying a prominent place in the work of public health officials.

Control of milk is carried out through food standards, bacteriologic standards, temperature standards and inspection standards, Dr. King explained.

Food standards protect the customer from visible dirt in milk, skimmed or watered milk, adulterated milk and milk of low food value. Bacteriologic standards serve as a check on methods of production, distribution and handling. Temperature standards are intended to insure prompt cooling and the maintaining of its temperature as near 40 to 50 degrees F. as possible until it is delivered to the consumer.

Inspection includes the examination of all animals for disease, the official control of facilities for the care of animals, control of dairy equipment and of conditions connected with the handling of milk at all stages. Laboratory examination serves as an indicator of weak places in the chain of production and distribution. Complete pasteurization is the final safeguard from the point of view of the public health.

The final step in milk control remains to be accomplished, however, Dr. King pointed out. The milk consumer must be educated in the care of milk in the home. The householder must learn that milk will quickly become unfit for food unless it is properly kept. It must be protected from dust and heat and the milk bottles must be properly cared for.

To carry out an effective milk control program certain factors are indispensable. Dr. King enumerated these as follows: maintenance of a central milk laboratory in the state health department; a milk survey; enactment of effective milk ordinances; the elimination of disease from dairy herds and all cows furnishing a public milk supply; cooperation on the part of all organizations interested in the milk industry, and a campaign for education of the public.

The Bowling Green

By

George H. Dacy

A FINE amusement for the twilight years of life is bowling on the green or lawn bowls, a recreative and scientific sport that is almost as old as time. Lawn bowling is a game offering just enough physical exercise to be stimulating. The scientific skill required for adeptness in the game holds the interest of its devotees at active pitch.

To see American lawn bowling at its best one should watch the annual matches for the Colgate cup. There the most distinguished players of this continent compete with earnestness yet with apparent lack of effort for the national trophy. There one may see octogenarians tanned by the sun, active and sprightly in step and as enthusiastic as schoolboys playing their first baseball match.

Golf Too Strenuous for Old Age

Golf is an admirable game for middle age but it is a little too strenuous for old age. It tests the physical endurance of the man over 70 when the course is rolling and rugged. It tries his disposition, for poor shots in golf breed low spirits and discontent. The game of lawn bowls is a regular maker of happiness, providing physical stimulation and mental contentment.

There is a soothing effect upon the player of the fine turf, for green is the most restful of colors. What can be more enjoyable than playing lawn bowls on the velvety carpet of a tree-bordered court with the perfume of summer roses from the neighboring gardens in the air?

The bowling green divided into its various rinks is the masterpiece of grass culture. The patience and skill of decades are centered in making the playing field the smoothest that nature can produce. From Canada to Cape Sable and from Key West to California these playing fields speckle the landscape.

Sir Francis Drake a Devotee

In early times when might was esteemed right and all men were trained for mortal strife, lawn bowling became so popular in England and other European countries that it attracted soldiers and their leaders from archery practice and other war games. This condition became so serious that eventually laws were passed prohibiting able bodied men from playing the game. Certain of these laws were in force in England until 1845, when they were repealed.

Sir Francis Drake was an ardent champion of lawn bowling and during his vacations ashore between voyages of discovery, he spent many hours daily with jacks and balls—and companionable associates. A tale is told of Drake's keen interest in the game. One day a courier from the coast brought news to the bowling field on which Sir Francis played of the appearance of the Spanish Armada off the coast of Cornwall. Drake was engaged as usual in lawn bowling. When advised of the nautical peril that threatened his native land, he said, "Let us finish our game and then we'll go forth and finish the Spaniards."

The art of Greece and Egypt informs us of the advent and popularization of lawn bowling. This remarkable game and its players are painted and sculptured on the art relics of earliest time. The word "bowl" comes from a Latin word meaning a round rock which was rolled along the green. But the game as played by the ancient Greeks and Egyptians would hardly be recognized today. Scotland has led in the improvement of the sport. In fact, the Scottish Bowling Association is the supreme court of this sport as played in the British Isles, Australia, South Africa, the West Indies and Canada.

Bowling in Colonial Days

Prior to the Revolutionary War, the colonials of Manhattan bowled regularly on well kept greens at the lower end of Broadway near the Battery in New York City. The neighborhood is still called Bowling Green and is the hearthstone of the ancient pastime in the United States. War days shunted lawn bowling into discard. The sport was not revived until about fifty years ago when a certain Christian Schepflin of Dunnellen, N. J., during a visit to Europe became interested in bowling on the green. When he returned to this country, he built a bowling rink on his lawn, which resulted in the formation of the Dunnellen Bowling Green Club with Mr. Schepflin as president.

It was the captain of the ship on which Schepflin sailed to Great Britain who sowed the seed that transformed Mr. Schepflin from a retired manufacturer into the father of lawn bowling in the United States. The skipper presented his passenger with a card of introduction to the leading lawn bowling club in England. A visit to the club and a few "shots" with the bias-turned balls aroused his interest in the sport.

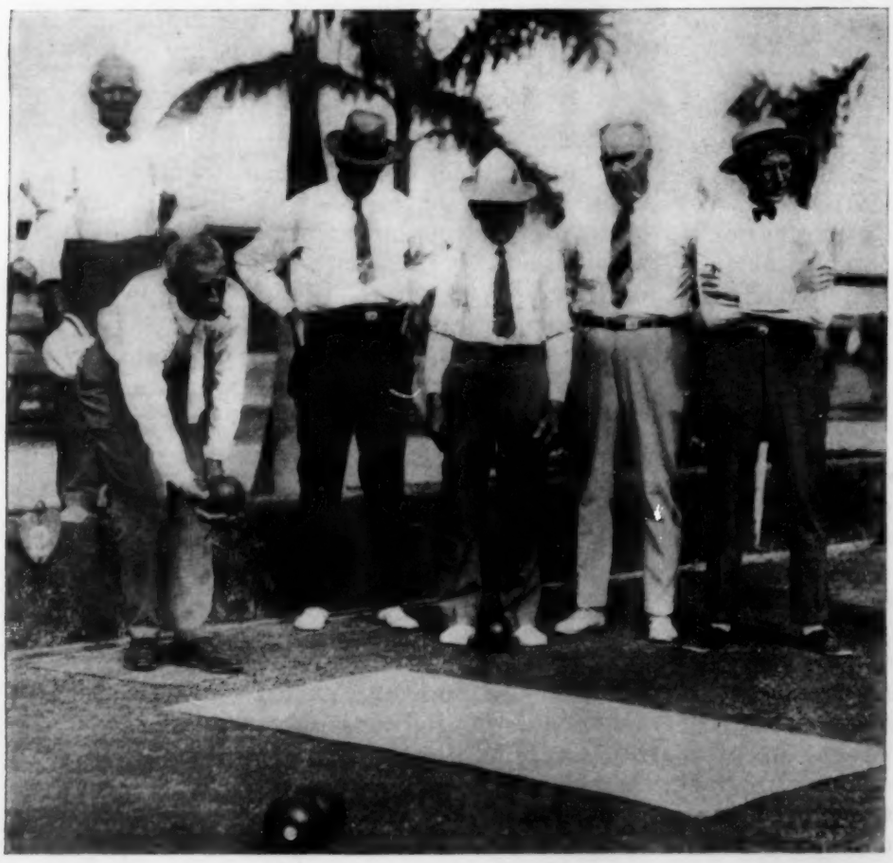
The Dunnellen Bowling Club started the ball —or rather the bowls—to rolling regularly along the Atlantic seaboard. Soon another club was formed at Middlesex, an adjoining community. This was followed by the New Jersey Bowling Green Club. Brooklyn, Boston, Fall River, Buffalo, Detroit, Chicago, Louisville and San Francisco also engaged in the sport and laid the foundation for its affiliation on the calendar of America's outdoor amusements.

Lawn bowling has prospered because it is best adapted of all outdoor games now played on this continent for the entertainment of men and women who are enjoying their sunset years. It yields attractive dividends in health and longevity and is absorbing because it involves a test of scientific skill. In addition, it promotes good fellowship and congeniality.

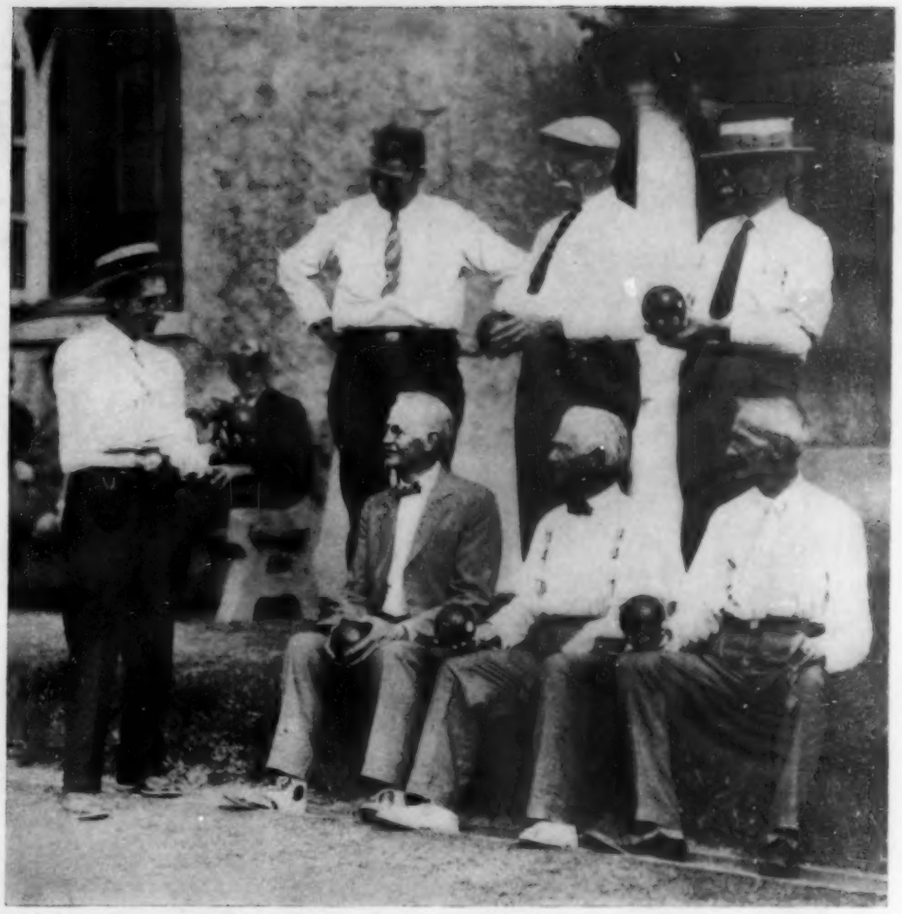
How the Game Is Played

The bowling court is usually about 120 feet square or larger and is either carpeted with turf of the finest texture or else is blanketed with sand compactly firmed and leveled. The green is surrounded by a ditch 1½ feet wide, which catches the stray balls and overshots. The individual rink is from 19 to 21 feet in width and extends the length of the court. The ordinary court is divided into five or six rinks.

The balls, milled with a bias so that one side is more convex than the other, are made of lignum vitae. The finest bowls come from England and Scotland, where they are made by wood workers skilled in the art. These balls must not be larger than 16½ inches in circumference and must not exceed 3½ pounds in weight. Each ball is numbered for



The bowler must have one foot on the rubber mat as he delivers the bias-turned ball, made of lignum vitae.



A good prescription for elderly folk who are rusting in their inactivity is a daily game at lawn bowls.

identification purposes and also bears its owner's initials. Each bowler uses four such balls in a game of singles.

The jack is a white porcelain ball 2½ inches in diameter and is the object or target at which the larger wooden balls are bowled. Balls are played either by forehand or backhand delivery. To the tyro, the game is difficult because of the fact that the balls curve wildly as they lose momentum owing to their curious shape. They act more like spherical boomerangs than like anything else. At each end of the rink is a small rubber mat and the bowler must keep one foot on this mat as he delivers the ball.

At the opposite end of the rink from the players, the porcelain jack is placed in conspicuous position. Four players constitute a team and each bowls two balls at the jack. When singles is played, each competitor bowls four balls from each side of the rink, the jack being changed at each inning. One point is scored by each of the balls resting nearest to the jack after all have played in one inning. The game continues until the winning team or individual has scored the necessary number of points, usually 21. The ends of the rink are called respectively the mat and kitty and are reversed at the end of each inning.

Many Bowlers Migrate with Season

Back and forth across the rink tramp the players, their interest centered in the game but not so deeply but what they can laugh at the jokes of the witty and reap benefits from social contacts. The player may play one hour or all afternoon. It all depends on his age and endurance, although when played the hardest this game is only a mild and pleasant form of exercise.

During the winter when snow and icicles envelop the northern and western states, the tramp, tramp of bowlers and witty snatches of their conversations resound daily in Florida and California. For like the migratory birds, the bowlers, most of whom are retired business men, bankers, builders and bishops, speed southward or to the Pacific coast.

Resort Cities All Have Courts

In Florida, lawn bowling courts are as common as apartment-for-rent signs in the resort centers. Imported bowling balls in their leather bags are beginning to rival golf clubs and fishing rods as the most prominent sporting equipment in the baggage of incoming tourists. Miami and St. Petersburg are the ranking Florida cities in the recent revival of bowling on the green. Both these cities maintain permanent clubs with exceptionally fine rinks and commodious, comfortable clubhouses. Less elaborate facilities for the sport are provided in other resort cities of Florida. Canadian visitors in both Florida and California have done much to increase the active interest in lawn bowling. Like their British relatives, the Canadians are dyed-in-the-wool bowlers.

A good prescription for elderly folk who are rusting in inactivity is a daily game at lawn bowls. Beginners may be a little stiff after the first day's play, but the lameness will soon wear away. Then will come exhilaration and beneficial stimulation from the healthful exercise. The love of a pleasurable hobby will be added to lives that otherwise may be drab, discontented and desolate.

Broken Minds

Youth was strong in character and physique in colonial days in America. Character training was given to every child, and the physical weaklings perished in childhood.

PERSONALITY is a thing of slow growth, the sum of all mental functions. It is rooted in the emotions, themselves an outgrowth and conscious accompaniment of the instincts. Intellect plays in most men a minor part in the development of personality. The new-born child is mindless. It has sensations, but no emotions, instincts that it obeys with no appearance, let alone reality, of willing, and, of course, no power of reasoning. Its functioning brain consists only of the basal ganglia and motor and sensory cortex. It does not have a kinetic personality but does have the potentiality of developing one.

The psychologist's most important task, one in which progress has been slow because there are so many x's in the equation, is to discover what are the elements that control personality and the mechanism of their functioning. The psychiatrist's task is to discover the causes of abnormalities and the means of preventing them.

Heredity Is Prime Factor in Personality

The primary factor in personality is heredity. Till germ cell and sperm cell fuse, environment cannot act, because such fusion creates the individual; after fusion, environment is active till death, but what it does depends on how the embryo, the child and the man react to it, and that depends on heredity.

Like produces like in things mental quite as much as in things physical. In things physical, and especially in lower forms of life, the mechanics of heredity is beginning to be known, but the method by which the potentiality and the specific qualities of the mind are carried from generation to generation remains a rich field for hypothesis, which means a barren field for rational theory. Hypotheses flourish in a soil barren of knowledge, rich in preconception; scientific theories need a soil rich in knowledge if they are to bear fruit.

Environment Can't Break Natural Laws

But the fact of mental heredity has been proved in the long history of man. One need not be a technical biologist to realize its reality and importance. The product of heredity is the matter on which environment works. Men differ as their protoplasm reacts differently to the outside world. Today, Americans, especially, like to believe that environment can work wonders, can break natural laws. Of course, it is not true. No environment under which the child is put after birth can make a biologically good parent of an epileptic, a victim of adolescent insanity, a pathologic drinker or an habitual criminal. But wise environment may save the child of such a parent from an evil destiny. Note, I use the word may, not will. An evil environment will hasten its fate. No environment will make a hand-minded child an intellectual, but Beethoven born and living his life in the African jungle could never have become a musical genius.

There is a current popular philosophy that every one should follow his instincts. To healthy-minded youth this philosophy makes no appeal, but its literature does harm because it is read by thousands of unbalanced adolescents.

# of Youth

By Charles W. Burr

How early in life, excluding congenital idiots and imbeciles, can one correctly prophesy as to the future personality of a child, as to his mental fate? Rarely can this be done before puberty. Acute infectious fevers in a child of good heritage, associated with meningitis, may wreck the mind and lead to acquired imbecility. We may safely prophesy of a boy, of say 12 years, who has a past history of repeated stealing, continued lying, and cruelty to smaller and weaker children, that he has little chance of becoming a good citizen, no matter how bright he may be in his school work or how angelic his face. He will probably become a professional criminal.

Mental Awakening May Be Late

On the other hand, there is a type of boy who is slow in developing intellectually, but whose moral reflexes are healthy, who awakes mentally during adolescence, sometimes only a little before physical maturity, and finally surpasses others that in boyhood were much brighter. More than a few distinguished men of science, of letters and of affairs, as children and youths were thought to be stupid. Really, such children live in a mental world of their own, think their own thoughts and develop in their own way. Sometimes they belong to the brooding class, silent, thoughtful and slow, but later valuable in doing the work of the world.

Again there is a type of boy who does not study, because he will not fix attention, because other things interest him more, and who is full of mischievous tricks but is not a liar or a thief, or cruel. He often, indeed usually, develops late but makes good.

We are only beginning to study clinically the growing mind of the child. Many nutritional diseases of childhood have no bad effect on mental development, if the child survives. For example rickety children often develop to a high mental grade and are not, because of the rickets, prone to any of the developmental mental diseases.

Certain infections act as stimulants. For example, bone tuberculosis (Pott's and hip disease) seems to cause mental brilliancy. Such children supply a disproportionate number, in the catalogue of men of letters, and not a few in that of men of science; but relatively few, for obvious reasons, become great men of affairs. The hunchback, who has a cured case of Pott's disease, even when of common blood, has a world old reputation for cunning and shrewdness.

Precocious Child May Not Be Brilliant Adult

Mental brightness in little children is no promise of brilliancy in maturity. Indeed, children of inferior races (I still believe there are inferior races, though the newest ethnology denies it) are often brighter and do better in school than Europeans, but at puberty they stop and often recede. Many explorers in Africa have noted this.

The precocious boy, who is defined as one developing rapidly and one sidedly, often becomes an eccentric, and not infrequently breaks during adolescence. The boy of whom a healthy, normal future, barring the accident of infectious brain disease, can be foretold, is he whose emotional reflexes respond healthily, who is not cruel after he is old enough to know what cruelty means, who accepts the school boy's code of honor, lies but seldom, and always with a motive, steals not at all, or only incidentally as an episode of adolescence, and who develops intellectually evenly.

Anatomic Form and Personality

Since Greek times, and probably even earlier, philosophers have tried to find the relation between anatomic form and type of personality. Today psychiatrists are trying to solve the same problem with all the apparatus for minute weighing and measuring that modern physics has given us, and the knowledge that physiology, biologic chemistry and clinical psychology has attained. Progress is slowly being made and it is a fertile field. Some students, and I am one of them, believe that if our eyes were sharp enough and our perception keen enough we could diagnose most diseases at sight and could form correct judgments as to personalities from anatomic form and by studying the changes of expression under different emotions, just as psychiatrists know when a patient has auditory hallucinations.

The study of the ductless glands promises help in finding the causes of personality. But, as yet, knowledge is fragmentary, and psychiatrists and psychologists are putting forth hypotheses that the physiologists and biological chemists do not accept, because they are not proved. But this broad statement is true, that certain of the ductless glands control physical growth and influence chemical processes within the body, and that personality depends in some unknown way and to an unknown degree on these things. Already, the administration of extracts from certain glands has been proved to be of value in a few diseases.

How Glands May Affect Personality

There are thumb rules about the functions of these glands that are of use in studying personality. For example, one almost never sees a very fat boy or young man the victim of adolescent insanity, nor is such a one ever head of his class at school or head of his gang outside. Hypothyroidism may make a boy stupid, just as it makes him sexually frigid, but it renders acute insanity almost impossible, probably because of the associated absence of any emotional life. Mild hyperthyroidism increases both mental power and brilliancy, but it sometimes goes on to acute mania.

Too long survival of the thymus as a functioning organ seems to be associated with persistence of mental youth. It may accompany brilliancy and originality in thought, but it never permits wisdom to grow. Its victims are never geniuses in the difficult art of successful living, though they may be in scholarship. Addison's disease (a disease due to destructive processes in the suprarenal glands) causes emotional depression and intellectual apathy. The cretin, so long as he remains high enough in the scale to feel emotion, is happy. He is an example of the fact that intellect and happiness have no relation to each other.

Cases in Mental Hospitals

I have noticed in going through wards for young men in hospitals for mental disease the astonishing number of men with long tapering fingers, effeminate in type. This may result from the interrelation of the gonads and the pituitary glands. I have not noticed a corresponding anatomic abnormality in mentally ill girls. Their hands are rarely masculine. The popular belief that the much to be pitied, congenital homosexuals always show physical stigmata characteristic of the opposite sex is not true. Men, very effeminate in appearance, are not infrequently masculine in thought, feeling and conduct. The little mouth, with high narrow palate, is much more frequent among patients in hospitals for mental diseases than in the general public.

Very rarely, I have noticed in adolescent insanity temporary changes in skin color, due not to capillary fulness or emptiness but to pigmentation. One young woman looked as dark as a mulatto during periods of great excitement, and like what she was, a high bred Spaniard with clear, cream colored skin, when at her best mentally.

Preventing Adolescent Mental Disease

What can be done to prevent adolescent mental disease? Its primary source and origin, its real cause, is heredity. This cannot be controlled. Certainly birth control will not solve the problem, because the people who ought to use this method will not; many, because they do not care what may become of their children, and a few, because they are so bound by superstition that they cannot conceive of natural, inexorable law. Nor can men and women, so long as they continue human, be made to breed eugenistically. Until recently a wise parent could and did in some degree control the kind of company his young people associated with. But all that has been changed.

It can be known only approximately how many persons are suffering from adolescent insanity, because there is an unknown number of victims who never get medical care. The

question often asked, Is this type, and is mental disease in general, increasing more rapidly than the population? cannot be answered accurately for the following reasons. There are many more hospitals for the insane than formerly, and the public is more willing to send patients to them. Physicians are taking more interest in mental problems, and hence making the diagnosis earlier and oftener. On the other hand, the conception of dementia praecox, which is often used as a synonym for adolescent mental disease, has become so broad as to include almost all mental abnormality, except general paralysis and senile dementia, from trifling eccentricity to hopeless madness.

Lunatic Fringes in Periods of Unrest

One thing points strongly to a real percentage increase. This is an age of great moral and intellectual unrest; an age in which, because of the genius of a few men and the intellectual industry and profound interest of many, great advances are being made in the so-called applied sciences, in pure science, and in appreciation of literature and art.

In such periods heretofore there have always been lunatic fringes, fungoid growths, and, with the spread of so-called education (ability to read, without ability to think, audacity to have opinions, without minds to form opinions), this fringe must be still greater. An uncertain number of members of the fringe not only wabble but fall over.

Our present system of education is bound to increase the number of mentally diseased. To try as we are doing to educate the unfit, is to increase the number of failures in life. This has always been true. I have no doubt that a few paranoids sat at the feet of Socrates and later volubly gave admiring audiences of morons and mattoids, in the streets of Athens, the wisdom of Socrates, filtered through the muddy marshes of their brains. The same was true in Alexandria, when Hypatia tried to resurrect the worship of dead gods.

Notably, this was true in the Renaissance, and when chemistry was trying to break the chains of alchemy. Just as in those times, conceited, arrogant, ill educated, because not educable, minds were attracted to philosophy and science and broke under the strain, so today the same thing is happening. The stress and strain of modern life breaks many who might have died peacefully of old age in quieter times.

Stress of Modern Life Kills Unfit

No one is safe on the street today unless his senses are alert every minute. Sexual temptation faces mere children constantly, crime is a commonplace and hunger for excitement grows with what it feeds on. All this is killing off, by mental disease, the unfit, and sometimes, by trauma, the fit. If this stress of modern life were the only factor acting on us, the race would finally become very strong. But there are other factors.

Recent Immigrants Have Weakly Offspring

The nature of the more recent waves of immigration, before we began to restrict it, certainly has increased the number of people who are likely either themselves to break or to have weakly offspring. The early settlers in America were for the most part strong men and women, not people who had been induced by steamship agents to come to a country where everybody is rich, but people who had the spirit of adventure, could withstand and even enjoy long voyages on small and crowded sailing vessels, who could withstand and enjoy the hardships of frontier life. Many of them craved real freedom of thought, not the emotional stuff that so many half-baked criers for freedom of speech are clamoring for today. Popular writers on the equality of men refer gloatingly to the criminals sent to the colonies as proof that bad seed may bring forth good fruit. They forget the number of criminal colonists was very small, and, if they will study the matter, they will find few were professional (most were accidental) criminals, that many of the crimes were trifling, and most of the criminals virile. In those early days the weaklings perished in childhood, because there was no way to prolong their lives. Character was the thing taught to every child. Science had not learned how to prolong the lives of the victims of poor protoplasm.

Struggle Less in Modern Life

The generation growing up has a different background and a different environment from that of our fathers. On account of the great wealth of the country, distributed by chance, there is much less struggle, and while struggle kills the weak, it strengthens the strong. Sociologic causes have brought about a state of affairs in which many people who have no idea how to spend money sanely have large sums to spend. Riches are found in queer places, and such wealth brings its natural consequences. Formerly, we spoke of the insanity of absolute power, the Roman emperors being the standard illustrative examples; now we can speak, with more truth, of the mental breakdown resulting from money in wrong hands.

The older education given in the home and emphasized in the school laid stress on what physiologists call inhibition, and ordinary people, self control. One hesitates to speak in praise of the Nordics, because the non-Nordics always have a violent emotional reflex when it is done. Nevertheless, the Nordics were, and their descendants are, people who believed and

taught their children that the controlling of the instincts was one of the fundamentals in true education and a necessity in character formation. They were right in their belief. Today, a non-Nordic philosophy has become popular, is being preached by many writers of books for popular consumption.

The Freudian philosophy, which teaches that suppressed unconscious desire is the great cause of mental disorders and that libido is the one real controlling thing in man, is today popular, partly because a corollary of it is that every one should follow his instincts. Freudianism is only an example of the common practice of building the superstructure of a dogma, with no attention to the firmness of the foundation. It assumes a subconscious mind, the symbolism of dreams, the universality of libido, as the one motive of human conduct and builds all else on these unproved assumptions. It has done much harm, because its literature is read by thousands of unbalanced youths. To the healthy minded youth, it makes no appeal. Up to date Freudians claim that no doctor should be permitted to practice psychoanalysis till he himself has been psychoanalyzed. I am inclined to think that all Freudian practitioners should, before being allowed to practice, be examined by a psychiatrist.

Save Babies Worth Saving

A movement to help the race, carried on with the religious fervor of a crusade, I mean the baby saving movement, has had both good and bad results. So far as it has saved and is saving healthy children who, because of acute illness, would die, it is doing a tremendous work for good; but so far as it is prolonging the life of children doomed to mental and moral crippledom, it is doing harm. The slogan should not be, save the babies, but should be, save the babies worth saving. I am my brother's keeper only if my brother is worth keeping. To save the potential morons and the children who are moral imbeciles, when nature is kind enough to try to send them to a place in which disease is unknown, is a biologic sin.

Control of the great epidemic diseases will aid in decreasing the number of mental disorders, because they leave a trail of broken minds. Epidemic encephalitis is the most terrible example in modern times of the results of such diseases. Many children who survive the acute attack develop serious personality changes. These changes are always evil, and an increasing number of young people brought before the courts give a definite history of having suffered from this disease. Control of syphilis will also help, because juvenile general paralysis is becoming more and more frequent.

Much Can Be Done for Borderline Cases

There is a great borderland inhabited by queer persons who are mentally neither normal nor abnormal. Rather, they are normal in some regards, abnormal in others. It is the country inhabited by the obsessed and the eccentric. The tics often appear in children and may after months or years cease. All tics and obsessions mean mental instability. These persons are greatly influenced by their emotional and intellectual environment and much can be done for them.

The one great factor in the prevention of mental disorders in the coming generation is a return to simplicity in living, training in self-control, less freedom in the intercourse of the sexes, less talk about rights and more training in duty. Mental disorders are primarily abnormalities in the emotional life, which itself is dependent on controlled or uncontrolled instincts. The purely intellectual disorders are of secondary importance. Almost every type of slowly oncoming mental disease reveals itself in conduct, before purely intellectual defect appears. In the acute types, with rapid or sudden onset, everything breaks at once. These are the rarer cases. The conclusion of the whole matter is that character training is our only hope.

The Runabout Child and his Problems

By Frank Howard Richardson

II. Nutrition

ONE of the first questions that the mother asks her physician in consulting him about her child is, "What shall I give him to eat?" This is quite as it should be, for eating is the most essential activity of any organism. The animal that does not eat, promptly dies; and man is no exception to this all-embracing rule.

Much has been said and written and thundered in recent years with regard to children's diet, yet there is a surprising degree of cloudiness on the subject on the part of the widely read as well as on the part of the unread housewife. Can we make the whole matter of diet so simple that no mother can fail to understand the indispensables, the irreducible minimum of dietary lore? Let us see.

An Outline of Diet Needs

For the mother who is interested in nothing except the barest facts necessary for her to keep her children in good health, a knowledge of calories is not essential. She may even forego the joys of recognizing a vitamin when she sees him—none of us can do that—if she will but carry in her head a general classification of foods and what they do for the body. If she will do this and will supply a choice from among these general classes, she will not go far astray in providing her child with what is needed to make him into a strong, healthy boy and later into a well developed man. Care of the dietary must begin at an early age, in order to be effective.

It is necessary for the mother to realize the importance of the following food classes:

1. The best food is milk. Milk stands alone as the one indispensable food in the dietary. It is protective in the highest sense of the word. The fact that, when fresh and when procured from cows properly fed, it contains all the known vitamins, is only one of the many good things to be said about it.

The question is often asked, "Which is better, certified or pasteurized milk?" This query betrays real ignorance, for certified milk is nothing more nor less than milk good enough not to need pasteurization, and with its goodness certified to by the medical society in the neighborhood in which it is produced. Cleanness, freshness and freedom from disease-producing organisms are essential, if milk is to merit all the good things that have been said about it. The best milk, even if it is the most expensive, is none too good for the runabout child, whatever the housewife may think about the wisdom of giving second class or third class milk to the rest of the family.

Butter, which is a milk product, belongs in the same class. It is essential to the health of the runabout child but should be given in small quantities, as the young child does not tolerate large quantities well.

Cereals Second Only to Milk

2. Cereals constitute the next class of desirable foods for the young child. Cereals are best when given in the form of a hot, cooked breakfast food, with milk and with little or no sugar. The young child is perfectly willing to take them this way; the addition of sugar, so often insisted on by the parent, is unnecessary and frequently undesired. The less sweet children of this age take the better for their health in general and for their appetite in particular.

3. Green vegetables constitute a valuable part of the dietary of the growing child. They may be classified roughly into the leafy vegetables (lettuce and spinach), which are the most desirable; the legumes (peas, beans and lentils), and the least valuable, though still useful, rooty vegetables, such as carrots, turnips and potatoes. If the mother will see to it that her child gets one or two vegetables each day, she may rest assured that she has done well by him.

There is one thing for the overanxious mother to remember, however. In these too-scientific days an undue measure of merit has come to attach itself to spinach; many a child has reason to rue his mother's too receptive acceptance of the dictum that spinach covers a multitude of dietary sins. If the youngster conceives an aversion to any of these foods, it is far better to let him alone until he comes round of his own will than it is to badger him into a state of emotionally charged high tension with regard to any food. The taking of food can easily become undesirably conditioned, if it is accompanied by urgings, scoldings and harpings, such as are unfortunately common in many households.

4. Fruits should be a part of the daily diet of every growing child. The use of oranges should of course have been started early in the first year, long before the time of which we are speaking. Apples also should have been added, toward the end of the first year, both raw and baked, as well as in the form of applesauce. Thoroughly ripe bananas—by which is meant bananas not with yellow but with golden skins—are a welcome addition. Prunes, stewed without sugar, are always a standby. Other fruits had best be left for the doctor to prescribe. His word may always be taken as a safe guide.

Glandular Organs Best in Meats

5. Meats are still somewhat of a bone of contention, though for the most part authorities are agreed that they are less valuable than they were formerly considered. In fact, the child who gets no muscle meats (beef, steak or mutton) probably is as well off as the one for whom these expensive viands are purchased dutifully by solicitous parents. The same is true of meat broths. They contain almost no nourishment and have the disadvantage of taking up space that could be used to greater advantage by other more desirable foods. On the other hand, the glandular organs—liver, sweetbreads, brain and kidney—have come into unexpected favor.

6. Desserts should be kept as simple as possible. Simple puddings, junket and flavored gelatin are as elaborate as are needed at this age. Ice cream may be added as a treat; with the suggestion that, if home made, it had better be made from one-half or one-third cream, as young children do not bear rich cream well. Limiting desserts to such simple things is by no means the hardship to children that oversympathetic parents sometimes think.

No mention of eggs has been made in this classification. For children who tolerate them, three eggs a week make a good protein addition to the diet. For that large class of children who have an idiosyncrasy toward either the white or the yolk, as manifested by the appearance of hives, nausea or vomiting, their omission is no great deprivation.

Breads, as will readily be recognized, are only another form of cereal. It may be well to say just a word as to the recent agitation in favor of whole wheat flour and its products and against the milled or white flours. Undoubtedly there are conditions in which the whole wheat products are preferable for the child; constipation is one of these. Here the coarse residue known as bran may serve as valuable roughage.

The contention that whole wheat flour contains valuable elements that milled flour lacks would be sound if such flour were to be the sole or the main constituent of the child's diet. As it is not, nor is it desirable that it should be, the deficiencies of the white flour can readily be made up from vegetables and fruits. The milk that commonly accompanies cereal is one of the best foods for complementing its deficiencies.

Getting the Child to Eat

The anxious mother of the runabout child may tell her doctor that she knows what to give her youngster but that her main difficulty lies in the fact that he so often refuses to take what she sets before him. Her mind can be set at rest on this point and a great deal of family worry done away with.

If the mother gives absolutely nothing between meals and eliminates all added sugar from the diet, only one thing is necessary to the reestablishment of normal appetite; that is, strictly tabooing all conversation relative to food. If this is done and if the child is allowed to take as little as he wants—even nothing at all for a meal or two—it will surprise the elders of the family to see how soon the child will be eating as much as he needs. This may not be as much as his mother thinks he ought to eat; but his own appetite, unspoiled by parental interference, between-meals nibbling, and oversweet cloying, will constitute a safe guide to the quantity he needs.

The Baldwin-Wood tables of weight for age and height put out by the American Child Health Association are the guide for the later preschool years, and the Woodbury table for the earlier years. If, on such a diet as has been outlined, the runabout child stays persistently below his expected weight, something besides his diet is probably wrong. Some of the possible factors producing underweight will be considered in subsequent articles in this series.

"Remedies for Rheumatiz"

By Arthur J. Cramp

RHEUMATISM, as the term is generally used, is a much abused word, covering a multitude of pains and aches, whether in the bones, muscles or joints. As most of us are subject to passing attacks of more or less ill-defined pain or discomfort, and as there is a general tendency to classify such indispositions under the loose term "rheumatism," it is not surprising that the quack and nostrum vender reap a rich harvest in the sale of alleged cures for this almost universal, self-diagnosed complaint. Many charlatans who sell "rheumatism cures" recommend their products also for gout and neuralgia, and occasionally even for headaches, thus broadening the field for their nostrums.

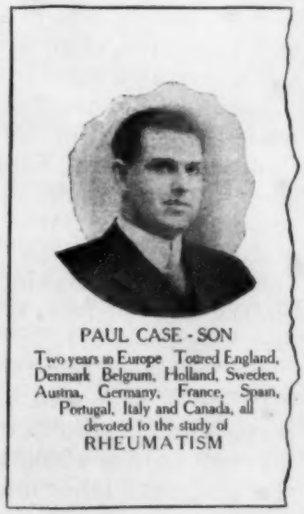
Many cases of rheumatism are due to an infection or infections in some part of the body. The patient may have been troubled for a long time by repeated attacks of tonsillitis or sore throat, or may have had an infection at the base of the teeth or in some other more remote part of the body. Then certain cases of so-called rheumatic pain may be due to misplacements or old injuries. Other cases, in which the pain is in the knees or legs, may be due to foot trouble. In acute attacks of rheumatism, the heart may be seriously affected, and careful nursing, with prolonged rest, may be more important than the administration of drugs.

One of the commonest drugs to be used in the treatment of the symptoms of rheumatism is some form of the salicylates. While this often gives relief to the symptoms, it may have an unfavorable action on the kidneys. For that reason the salicylates are drugs to be used only under proper supervision.

As might be expected, the number of "rheumatism cures" is legion and an entire issue of HYGEIA could be taken up with a description of even the more widely advertised of this particular class of quack remedies. All that will be attempted in this article is to give, in as brief form as possible, the essential facts regarding some of the alleged cures for rheumatism that have been the subject of reports prepared by the Bureau of Investigation of the American Medical Association.

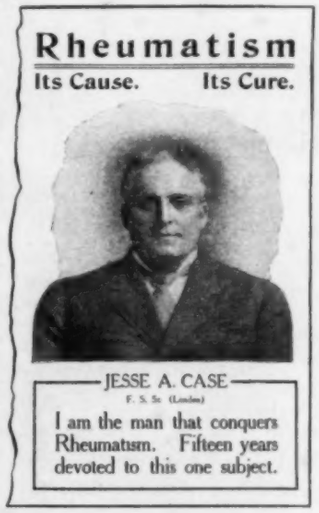
Caldwell's Rheumatism Cure.—This preparation was the subject of action on the part of the federal authorities some years ago, who declared that the "patent medicine" was misbranded. The chemists at Washington, when they analyzed the preparation, found that it contained 14½ per cent of alcohol with salicylic acid and ammonia, together with minute quantities of other substances.

Case's Rheumatic Specific.—This piece of quackery was sold on the mail-order plan by Jesse A. Case of Brockton, Mass. The "treatment" consisted of Rheumatic Pills and Liver Tablets. The pills contained colchicum and sodium salicylate; the tablets were made of cascara, aloin, podophyllin and baking soda. Jesse A. Case exploited his nostrum in the usual fraudu-



PAUL CASE - SON

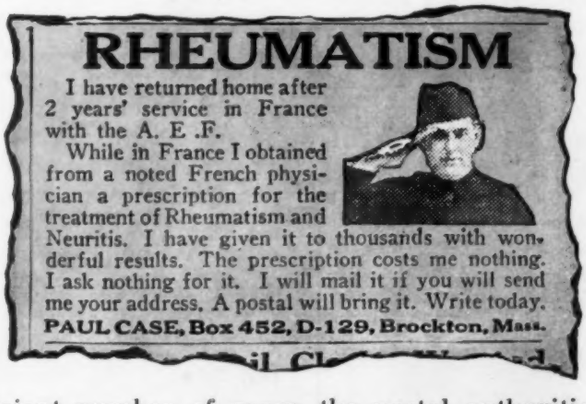
Two years in Europe Toured England, Denmark Belgium, Holland, Sweden, Austria, Germany, France, Spain, Portugal, Italy and Canada, all devoted to the study of RHEUMATISM


Rheumatism
Its Cause. Its Cure.
JESSE A. CASE
F. S. Sc. (London)
I am the man that conquers Rheumatism. Fifteen years devoted to this one subject.

lent manner common to mail-order quacks and, in due time, the federal authorities got around to Mr. Case, declared his business a swindle and debarred him from the use of the United States mails. Within a month after the issuance of the fraud order, the government, on the basis of an affidavit from Case declaring that he would discontinue the business and would not revive it any time in the future, revoked the fraud order.

Case's Rheumatic Treatment.—This piece of quackery is exploited by Paul Case of Brockton, Mass., son of Jesse A. Case, just referred to. Paul Case, like his father, sells his nostrum through the United States mails and, in doing so, capitalizes and disgraces the uniform of the United States Army. Paul Case claims that his "rheumatism treatment" is a prescription that he got, when overseas, from a Dr. Beaupré, whom he describes as a "noted French physician." There is not and never has been a noted French physician of this name, and, while Case claims that Beaupré was at Aix-les-Bains, investigation fails to show that any physician of that name ever practiced there. The so-called prescription consists (like the "treatment" sold by his father) of Rheumatism Pills and Liver Tablets. Also, the pills and tablets have the same general ingredients as those previously sold by Case, Sr.

Paul Case makes a pretense of sending to any one who writes a copy of the prescriptions, so that they can be filled in the local drug store. The trick is an old one among quacks. The prescription, when it comes, calls for one ingredient that drug stores do not carry. Possibly, after Paul Case has quacked it for a sufficient number of years, the postal authorities will issue a fraud order against him. Possibly, too, by that time, Paul Case may have a son old enough to start up the business under another name.


RHEUMATISM
I have returned home after 2 years' service in France with the A. E .F.
While in France I obtained from a noted French physician a prescription for the treatment of Rheumatism and Neuritis. I have given it to thousands with wonderful results. The prescription costs me nothing. I ask nothing for it. I will mail it if you will send me your address. A postal will bring it. Write today.
PAUL CASE, Box 452, D-129, Brockton, Mass.

Cass Laboratories.—Of course, there are no laboratories, the name is merely an imposing one for a crude piece of medical mail-order quackery. The advertising states that the president of the laboratory is Harvey L. Cass. There is no such person, although what purport to be pictures of H. L. Cass are part of the advertising buncombe, as is also what purports to be a photograph of "Tom, Bob and Dick Cass"; even a "Mrs. Cass" is dragged into this crude quack hunt for victims. The Cass "treatment"

consists of pink tablets, gray tablets and a white powder. The pink tablets, when analyzed by the laboratory of the American Medical Association, were found to be baking soda; the gray tablets contained aspirin, cinchophen and charcoal; the white powder was Epsom salt with a little flavoring. In October, 1926, the post-office department was about to issue a fraud order against the Cass Laboratories when the man who runs the fakery submitted an affidavit stating that the business had been discontinued and would not be resumed. The facts were that a month before this sworn statement was issued, the name "Cass Laboratories" had been abandoned and a new name, "H. L. Cass Corporation" had been adopted. Evidently, if one is only impudent enough, he can thumb his nose at Uncle Sam with impunity.

Clearwater's Rheumatic Treatment.—H. P. Clearwater of Hallowell, Me., quacks it with a somewhat extensive line of nostrums, some sold on the mail-order plan, others sold through drug stores, with which Clearwater splits profits. His "rheumatic treatment" is sold through the mails. Clearwater has also operated, if he does not still, two other pieces of mail-order quackery under the names, respectively, "Heart Cure Company" and "Associated Specialists." Clearwater's rheumatism treatment consists of red tablets and white tablets. The red tablets were found to contain, on analysis, a very small amount of sodium iodide, about 5 grains of washing soda and a laxative. The white tablets also contained a laxative and some bitters (gentian).

Cowan's Rheumatism Herb.—John J. Cowan traded under the name "Rheumatism Herb Company" from Santa Monica, Calif. His preparation, when analyzed by the federal chemists, was reported to consist of dried and moldy leaves of a species of eucalyptus. When charged with making false and fraudulent claims, in February, 1923, Cowan pleaded guilty and was fined $11.

De Sanctis' Rheumatic and Gout Pills.—These pills have been marketed by an English concern, which exploits them in the United States through an American agent. When analyzed in the chemical laboratory of the American Med-

ical Association, the De Sanctis pills were found to be essentially five-grain doses of powdered colchicum seed. Colchicum is an extremely poisonous drug and has no place in preparations of the home-remedy type.

G. S. Remedy.—A quantity of this product, consigned by L. M. Gross, Little Rock, Ark., to Cairo, Ill., was seized by the federal authorities on the charge that it was misbranded. The preparation was found to contain alcohol, vegetable extractives and a small amount of potassium iodide. The court, in January, 1920, condemned the product and ordered that it be destroyed.

Harrell Associated Chemists.—This impossingly named Chicago outfit sells a quack cure for rheumatism on the mail-order plan. J. Randolph Harrell, the incorporator and chief owner of this piece of quackery, is described in the advertising as a "professor," as a "noted Virginia chemist" and as an "authority on physiological chemistry." The facts are that Harrell is unknown to reputable medicine, pharmacy or chemistry. The "treatment" sent out by Harrell consists of (1) gelatin globules holding a small amount of an oily substance, (2) tablets and (3) capsules. When tested in the chemical laboratory of the American Medical Association, the oil in the globules was evidently oil of wintergreen (methyl salicylate), the tablets responded to tests for cinchophen, while the capsules were filled with pink baking soda!

Hibbard's Rheumatic H. R. S. Syrup.—A consignment of this product, shipped in 1913 by the Burks Medicine Company of Chicago, was analyzed by the federal chemists and found to contain alcohol, sugar and a small amount of salicylic acid. The claims made for it were declared false and fraudulent and, in 1915, the court imposed a fine of $200 and costs.

RHEUMATISM
G. S.
is guaranteed for one bottle to benefit any case of Rheumatism, Neuralgia, Constipation, Blood, Liver or Kidney disease. Many thousands claim one bottle has entirely relieved them. My guarantee is good to you. At druggists or agents, or mail paid $1.00 per bottle, or 6 for $5.00. Write for testimonials and mention this paper. Take Great Liver Pills, 25c.
L. M. Gross, Box 17, Little Rock, Ark.

Hill's Rheumatic Pills.—The H. W. Belden Company of Minneapolis (a trade name for Harriet W. Belden) shipped a quantity of these pills in 1917, which the federal authorities declared was misbranded. When analyzed, the pills were found to contain vegetable extracts, including aloes and a small amount of mineral salts. The pills were fraudulently represented as a cure for rheumatism and, in April, 1919, Harriet W. Belden pleaded guilty and was fined $10.

Rheumatism
A Remarkable Home Treatment Given by One Who Had It
In the year of 1903 I was attacked by Muscular and Sub-Acute Rheumatism. I suffered as only those who are thus afflicted know for over three years. I tried remedy after remedy, but such relief as I obtained was only temporary. Finally, I found a treatment that cured me completely and such a pitiful condition has never returned. I have given it to a number who were terribly afflicted, even bed-ridden, some of them seventy to eighty years old, and the results were the same as in my own case.
"I Had Sharp Pains Like Lightning Flashes Shooting Through My Joints."
I want every sufferer from any form of muscular and sub-acute (swelling at the joints) rheumatism, to try the great value of my improved "Home Treatment" for its remarkable healing power. Don't send a cent; simply mail your name and address, and I will send it free to try. After you have used it, and it has proven itself to be that long-looked for means of getting rid of such forms of rheumatism, you may send the price of it. One Dollar, but understand I do not want your money unless you are perfectly satisfied to send it. Isn't that fair? Why suffer, any longer, when relief is thus offered you free. Don't delay. Write today.
Mark H. Jackson, 72P Stratford Bldg. Syracuse, N. Y.

Jackson's Home Rheumatism Remedy.—This piece of mail-order quackery is exploited by Mark H. Jackson of Syracuse, N. Y. Jackson's preparation was analyzed by the federal chemists, who found aloes, licorice, cornstarch and some iron carbonate. The government charged that the claim that this was an effective treatment for rheumatism was false and fraudulent. In October, 1920, Jackson was given the opportunity to prove that his preparation was an effective treatment for rheumatism, but, instead, he pleaded guilty and was fined one hundred dollars.

Jenkins' Rheumatism, Gout and Neuralgia Annihilator.—This was found by the federal authorities to contain more than 46 per cent of alcohol, 1½ per cent of salicylic acid and some plant extractives. The claim that it was a cure for acute and chronic rheumatism was, in June, 1919, declared fraudulent.

Kuhn's Rheumatic Remedy.—This preparation, put out by the Kuhn Remedy Company of Chicago, was found by the federal chemists to contain alcohol, potassium iodide, iodine and sugar, with probably some herbs. In 1919, the government declared the product sold under false and fraudulent claims, and the company was fined $200 and costs.

Lafayette Pain Anodyne.—The Lafayette Company of Berlin, N. H., shipped a quantity of this product in 1923, which the government authorities declared was misbranded. The preparation was found to consist essentially of oils of spearmint and cassia, with camphor, red pepper and alcohol. The claim that the preparation was a cure for rheumatism was declared false and fraudulent, and in May, 1924, the court entered a judgment of forfeiture and ordered that the product be destroyed.

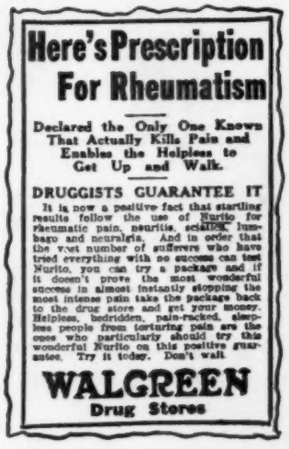
Lallemand's Rheumatism, Gout and Neuralgia Treatment.—This preparation, formerly called "Lallemand's Specific," was analyzed by the federal authorities, who reported that they found alcohol, potassium iodide, potassium acetate and colchicum. The claim that it was a cure for rheumatism was declared fraudulent.

Lillybeck's Painacura.—This preparation was analyzed in 1913 by the federal authorities, who

reported that it contained 67 per cent of alcohol, some oil of peppermint, acetanilid and chloroform. The claim made at that time, that it was a cure for rheumatism, was declared false and fraudulent.

Mizar.—This preparation, sold first from Chicago and later from a Chicago suburb, Oak Park, by one J. Sorokowski, was described as the "most effective remedy for rheumatism." Mizar is an ointment that smells of bergamot and lemon. The instructions are to rub it on the parts affected, then bandage the parts and keep them warm. Sorokowski states that, on the second or third day, an eruption will appear, with itching; this proves that the rheumatism is "coming out"! There have been reported to the medical profession cases of severe eruptions following the use of this preparation. This is not surprising, when it was learned by analysis in the chemical laboratory of the American Medical Association that the chief active ingredient in this ointment was red pepper.

Moorite Mineral Powder.—This was sold as a treatment for rheumatism by the Moorite Products Company of Seattle. When it was analyzed by the bureau of chemistry, it was found to consist of powdered clay.

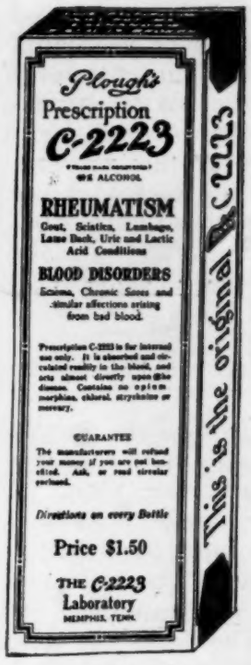

Here's Prescription For Rheumatism
Declared the Only One Known That Actually Kills Pain and Enables the Helpless to Get Up and Walk.
DRUGGISTS GUARANTEE IT
It is now a positive fact that startling results follow the use of Nurito for rheumatic pain, neuritis, sciatica, lumbago and neuralgia. And in order that the vast number of sufferers who have tried everything with no success can test Nurito, you can try a package and if it doesn't prove the most wonderful success in almost instantly stopping the most intense pain take the package back to the drug store and get your money. Helpless, bedridden, pain-racked, sleepless people from torturing pain are the ones who particularly should try this wonderful Nurito on this positive guarantee. Try it today. Don't wait.
WALGREEN
Drug Stores

Nurito.—Many years ago the chemical laboratory of the American Medical Association analyzed "Nurito," put out by the Magistral Chemical Company of New York, and found the stuff to consist of milk sugar, phenolphthalein (a laxative) and pyramidon. Apparently, the composition of Nurito has been changed, for, in 1927, the stuff was said to contain aspirin, caffeine, phenolphthalein and colchicum.

Naptholene.—One E. E. Sonnanstine, La Junta, Colo., shipped in 1920 a quantity of "Naptholene," which was sold under the claim that it was a cure for rheumatism. When analyzed at Washington, the stuff was found to contain gasoline, kerosene and red pepper.

Plough's Prescription C-2223.—This preparation, when analyzed by the federal chemists, was found to contain potassium iodide, plant extractives (including colchicum), a little salicylic acid with glycerin and alcohol. The claim that it was a remedy for rheumatism was declared false and fraudulent in April, 1923.

Prescription A-2851.—This preparation was known earlier as "Eimer and Amend's Rheumatic Remedy," and, according to the manufacturer, contained 45 per cent of wine of

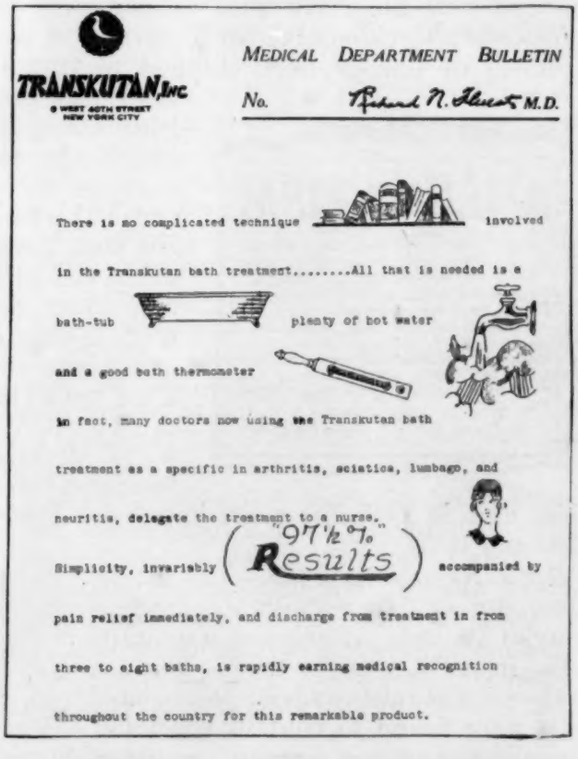


colchicum and a little more than 9 per cent of potassium iodide. Any preparation of colchicum is so powerful that it should never be used in "patent medicines."

Rheuma.—This preparation was analyzed by the state chemists of Connecticut, who reported in 1924 that it contained salicylic acid, potassium iodide and probably turpentine and some digitalis preparation.

St. Jacob's Oil.—According to a report issued by the Michigan Dairy and Food Department in 1914, St. Jacob's Oil consists essentially of turpentine 81 per cent, ether 9 per cent, and alcohol 10 per cent.

Sloan's Liniment.—When this preparation was analyzed by the federal chemists in 1918, they reported that it was essentially a mixture of kerosene (coal oil), turpentine, oil of sassafras and red pepper. When it was analyzed by the state chemists of Louisiana, they reported that it was about one-half oil of turpentine,


TRANSKUTAN, INC
9 WEST 40TH STREET NEW YORK CITY
MEDICAL DEPARTMENT BULLETIN
No.
Richard N. Elwell M.D.
There is no complicated technique involved in the Transkutan bath treatment.....All that is needed is a bath-tub plenty of hot water and a good bath thermometer
In fact, many doctors now using the Transkutan bath treatment as a specific in arthritis, sciatica, lumbago, and neuritis, delegate the treatment to a nurse.
Simplicity, invariably ("97½%" Results) accompanied by pain relief immediately, and discharge from treatment in from three to eight baths, is rapidly earning medical recognition throughout the country for this remarkable product.

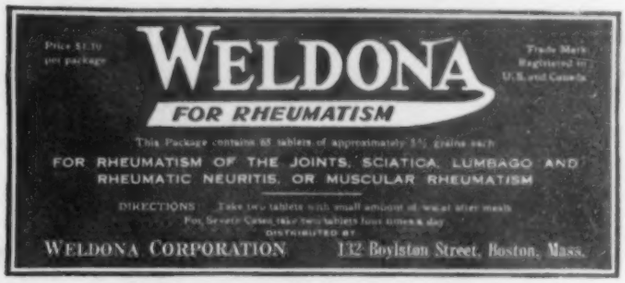
about one-third oil of camphor, with some oil of sassafras and red pepper.

Transkutan.—This preparation is not sold direct to the public but is supposed to be sold

only on a physician's prescription. The preparation is a liquid which separates into two portions, an upper (oily) layer and a lower (watery) layer. When analyzed in the chemical laboratory of the American Medical Association the oily portion was found to be essentially turpentine, to which had probably been added small amounts of menthol and camphor. The watery portion contained certain salts.

In using "Transkutan," the patient gets into a hot bath and is kept submerged up to the chin for five minutes; then the entire contents of a $5 bottle of Transkutan are poured evenly over the surface of the bath water. Naturally the turpentine flows over the surface of the water. The patient is then taken slowly from the bath, so that a film of turpentine covers the body. He is then wrapped in a blanket without rubbing and placed in a warm bed and allowed to sweat for two hours. Obviously, the same result might be obtained through the use of only a few cents' worth of oil of turpentine.

Tripp's Liquor Rheumatica.—This preparation was analyzed in the chemical laboratory of the American Medical Association and was reported to be a pale yellow liquid which, when shaken, became red. The red color was due to finely powdered red saunders. The preparation was also found to contain alcohol, potassium iodide and a very small amount of cinchona alkaloids. Cinchona (Peruvian bark) is the crude drug from which quinine is obtained.


WELDONA
FOR RHEUMATISM
FOR RHEUMATISM OF THE JOINTS, SCIATICA, LUMBAGO AND
RHEUMATIC NEURITIS, OR MUSCULAR RHEUMATISM
DIRECTIONS
WELDONA CORPORATION 132 Boylston Street, Boston, Mass.

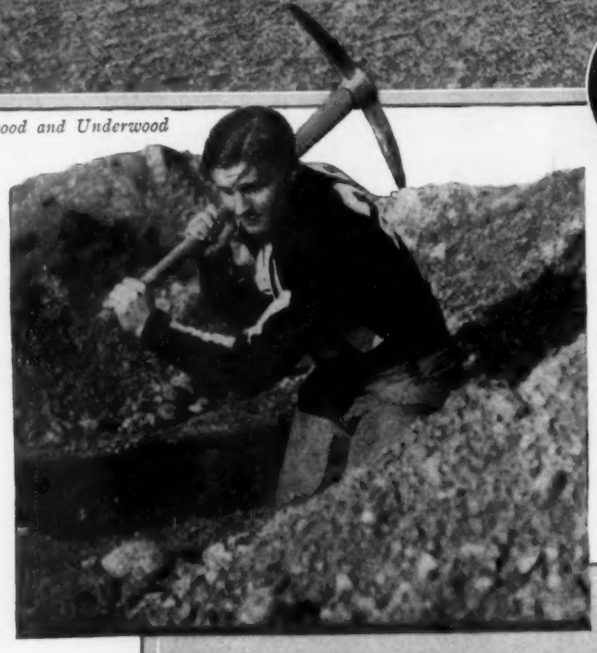
Volta Powder.—This preparation, sold by the Volta Company of Buffalo, N. Y., which was a trade name used by C. A. and A. N. Gianelli, was analyzed by the federal chemists and found to be a mixture of sulphur and impure iron oxide. The claim that it was an effective treatment for rheumatism was declared false and fraudulent.

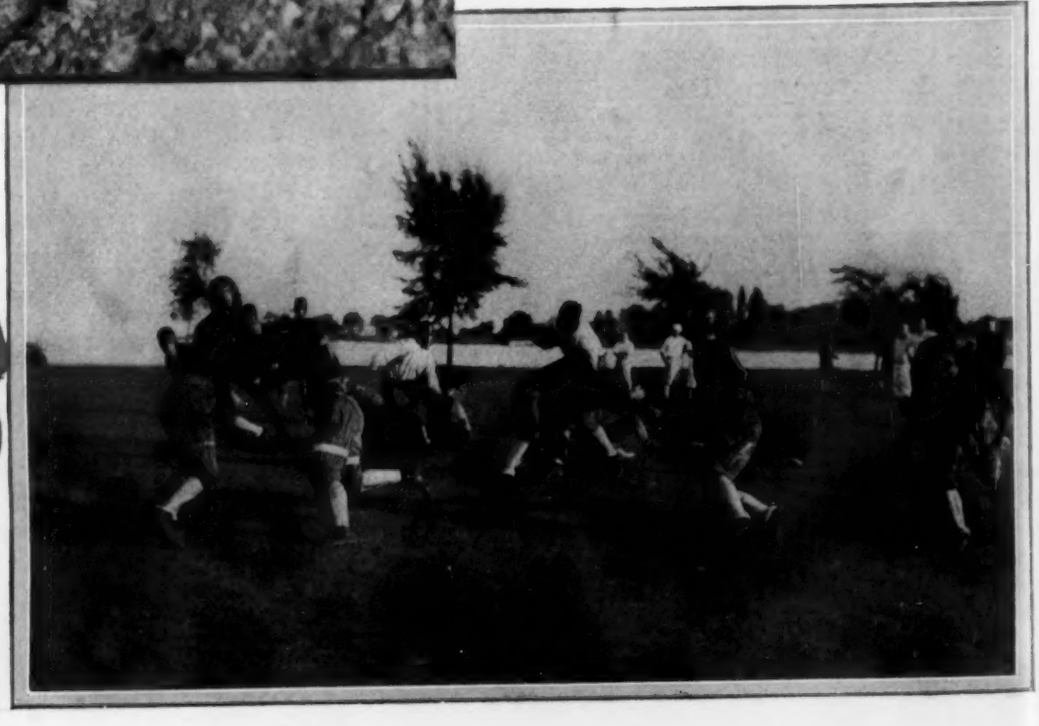
Weldona.—The Weldona Corporation of Boston puts out this preparation, which seems to vary in composition, as do so many "patent medicines." The product has come in the form of white tablets and lavender-colored tablets. In 1924, the chemical laboratory of the American Medical Association reported that the white tablets contained a laxative, probably cascara, while the lavender-colored tablets contained sodium salicylate and some vegetable extractives. No alkaloids were found. In 1925, the Health Bureau of Rochester, N. Y., tested Weldona and reported that some alkaloids were found, together with salicylates. In 1926, the chemical laboratory of the American Medical Association made another analysis of Weldona and found, in addition to salicylic acid, aspirin. In 1927, Weldona advertisements were offered to some newspapers and the advertising agency declared that Weldona contained neocinchophen, cimicifuga, poke root and some other substances. A commercial laboratory that analyzed Weldona in 1927 found poke root and cascara, together with aspirin and salicylic acid.

Yellow Pine Compound.—David F. H. McDowell, who did business under the trade name "Yellow Pine Extract Company," sold "Yellow Pine Compound." According to the federal chemists, this preparation was a mixture of turpentine and magnesia, with a small amount of jalap. In 1921 the claim that it was an effective treatment and cure for rheumatism was declared fraudulent.

Underwood and Underwood

Shaping a Football Team

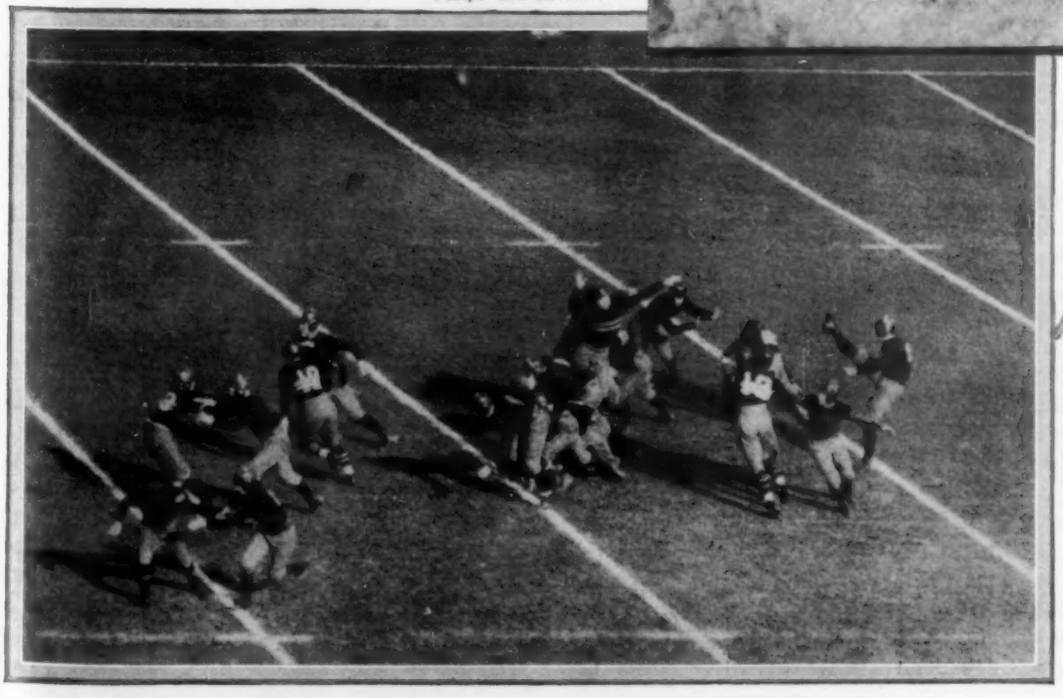




Pacific and Atlantic

Wide World

Pacific and Atlantic



Stuttering
A STATE OF MIND

By Walter Béran Wolfe

FEW disorders cause greater distress than stuttering and stammering. A stutterer is always at a disadvantage, whether in the home, on the street, at school or in business. Only too often misunderstanding parents and teachers make his difficulties greater by impatiently scolding the sufferer at home and at school, while he frequently becomes the butt of others' ridicule on the street.

It is doubly unfortunate that this common disturbance is so little understood. Parents often think that the stuttering child maliciously chooses this trait and treat it by punishment and criticism. Teachers are prone to avoid the stuttering child because he is a hard classroom problem. Physicians are prone to look for the cause of stuttering in malformations of the anatomic structures involved in the speech mechanism and to confine their efforts to training the stutterer in the physical technic of speaking.

The percentage of cases of stuttering and stammering that have actual organic, physical causes is negligible. These problems must therefore be approached from a psychologic and philosophic angle. We must inquire what possible purpose stuttering could have and how the stutterer could accomplish his purpose by using defective speech as an instrument.

Speech is the greatest bridge between human beings. Any one who is well adjusted to his social situation—provided, of course, that he is not suffering from gross defects of the speech mechanism—can learn to speak, just as he can learn to think, reason or behave in a common-sense way.

People who are friendly to their fellows, who cooperate in the world's work by performing some useful task, who are well adjusted to the opposite sex, never stutter. Spoiled children, intimidated children, children who have been brought up in a cowardly, apprehensive or socially unadjusted environment, on the other hand, often become stutterers. It is significant that the greatest number of stutterers are recruited from youngest and only children, for these are the most frequently spoiled. The next largest group comes from oldest children, who have been displaced in the affections of their parents by the birth of younger brothers and sisters; it is this group, too, that makes up the greater proportion of socially maladjusted adults.

"K-k-k-k-katy" represents the first of the three stages in stuttering.

It is a mistake to believe that stuttering is a disease. It is a social phenomenon, which we can understand only when we can look at the stutterer not as an isolated individual but as a member of a group into which he has never been properly initiated. Stuttering is a state of mind the symptoms of which express themselves in speech difficulties. Like enuresis (bed-wetting) and pavor nocturnus (night terrors), it is a conduct disorder that occurs in dependent children who do not trust their own powers.

The proof that stuttering is not an organic disease lies in

the fact that the stuttering child does not stutter when he is alone and unobserved. He suffers from no speech difficulty when he is alone with his mother or nurse. Some stuttering children do not stutter when they are singing or when they are playing with other children, but only when they are faced with the necessity of making social contacts with strangers. Some children stutter only when they speak on the telephone and cannot assure themselves of the friendliness of the listener. In other words, stuttering is a condition that appears only under specific conditions. If stuttering were actually an organic disease of the speech apparatus these periods of perfect speech would be absolutely impossible.

The usual—and false—treatment of stuttering is to make the person conscious of his speech mechanisms and to train him in the mere mechanics of speech. All kinds of tricks are used to this end. Tedious breathing exercises are given. The stutterer may be taught to speak rhythmically or to the accompaniment of bodily motions such as the swinging of his arms. All this serves only to make him more conscious of the fact that he is a marked individual suffering from a disease that handicaps him in his social relationships. When one can speak only under such artificial conditions as are imposed by those who claim to cure stuttering one is really not speaking at all, but is performing a complicated ritual in which the social element is completely lacking. Moreover, he makes his associates uncomfortable by his studied efforts to talk.

The false treatment of stuttering is to make the person conscious of his speech mechanisms and to train him, by means of tricks, in the mere mechanics of speech.

Stuttering must be considered a symptom of social maladjustment. To occupy ourselves with the form and structure of this symptom is useless. Physicians might just as well try to cure scarlet fever by whitewashing the patient, or to cure St. Vitus' dance by putting the sufferer in a straight jacket, as to try to cure stuttering by paying attention to the actual speech mechanisms.

Three Stages in Stuttering

Many volumes describing the actual mechanism of stuttering have been written, and investigators have discovered that the stutterer usually passes through three stages in his malady.

In the first place there is a repetition or halting on certain syllables, or certain words, such as the familiar: "K-k-k-k-katy." This is called the clonic form of stuttering.

The second stage of stuttering results from the exaggerated strain of the stutterer's attempting to express the syllable or letter that causes him difficulty. In this form tremendous emphasis is placed on the single letter, which is pronounced finally after great difficulty as "K-aty." This is the tonic stage.

In the third, more complicated form of stuttering, the stutterer uses additional muscles to express the difficult syllable or letter. He accomplishes this by screwing up his face or contorting his body, or by preceding his difficult syllable with a series of grimaces or tics. This stage rarely occurs in children but is frequently found in adult stutterers who have not been cured of their defect.

No matter in what form stuttering occurs, it may be cured without recourse to any of the familiar tricks of the speech teacher. As a matter of fact, stuttering can be cured without any reference to the mechanism of speech whatsoever. Psychiatric examination of the stutterer always shows that he is poorly prepared for life. The stutterer lacks social confidence. He usually has not learned how to make friends, and frequently he is a bad workman.

Stuttering is a sign of poor preparation for the social life that modern civilization demands. The treatment of the malady must be directed toward bettering this preparation or toward adjusting the sufferer to the world of reality.

In Pampered or Repressed Children

Stuttering is likely to occur in children who have been greatly pampered or much inhibited in their normal activity by their parents or teachers. It is one of the tricks by means of which a spoiled child protests against the difficulties of the world and seeks at the same time to maintain his connection with the person, usually his mother, who has spoiled him. This accounts for the fact that stuttering may begin suddenly in a first-born child when a brother or sister is born into his family. This first-born child has been used to being the center of his family and the recipient of all its favors. With the advent of his little brother or sister he is deposed from his unique rôle and forced to share the family stage with the newcomers. If such a first child has not been properly prepared for the new situation he will frequently find some "nervous" trick to force his parents to continue their attentions to him. In this way

not only stuttering but also enuresis, tics, nervousness, lying, stealing and other conduct disorders of childhood may occur at this time.

A pampered child might be compared to an ivy plant which has grown on a trellis all its life. If the trellis were to be moved the ivy would stretch out its tendrils in order to regain its support. Stuttering can best be compared to a tendril that a dependent child stretches out to secure the support of his mother. When the trellis-ivy situation exists the stuttering does not occur, but as soon as a dependent child is removed from the support to which he has become accustomed through long pampering, the symptom appears.

When Stuttering Begins

Other pampered children are likely to begin stuttering when they first go to school. So long as they are in the fostering environment of their homes, stuttering is unnecessary, but the new responsibilities and obligations of communal life in the schoolroom are too much for the dependent and pampered child to bear. By stuttering in school he proves his lack of preparation on the one hand and builds a bridge back to the fostering environment on the other.

The stuttering child is right in believing that school is a bad place for him because he cannot construct the bridge of speech toward his associates. The failure of teachers to understand his malady, as well as the ridicule of his classmates, intensifies his belief that the only place in which he can be happy is in his home. Thus it is seen that stuttering is always a purposive mechanism and that the stutterer achieves his end by means of his symptoms.

Another occasion on which stuttering may make its appearance is after severe illness. Children are always treated more considerately during illness, but they are expected to assume their normal obligations after convalescence. The child who is poorly prepared for life because he has been surrounded by too much solicitude and anxiety may attempt to regain his paradise of the sickroom by stuttering in every other situation.

Stuttering may also begin in adolescence when a boy or girl is faced with the problems of sexual adjustment for the first time. The physiologic changes that make this period difficult for well-adjusted children present an insuperable obstacle to the pampered child. Children whose sexual education has made them afraid of assuming the normal adult sex rôle may begin to stutter during adolescence as a defense mechanism. The stutterer will say: "I should like to go out with girls, but they will not associate with me because I stutter." If the stutterer were aware that stuttering is a childish mechanism, a kind of mental apron string which ties him to the favorable environment of his solicitous mother, he could not practice such a feeble justification for his desertion from the battlefield of life.

Any person who attempts to cure stuttering by paying attention to the speech mechanisms that are involved is pursuing the wrong method. In rare cases, it is true, stuttering has seemingly been cured by attention to breathing and speaking exercises, but actually it has been the personality of the teacher who has encouraged the stutterer and enabled him to make contact with another human being that has been responsible for the success of the treatment.

Rational Cure for Stuttering

The rational cure for stuttering is encouragement to social adjustment and training in independence and self-confidence. In the case of a child this may best be done by giving him useful tasks about the home and in school, in which he can prove that he is a valuable member of society. The stuttering child must be weaned from his pampering environment and encouraged to believe that an independent, useful existence is a happier one than the ivy-trellis life that he has been leading. Any parent or teacher who is willing to play the rôle of well-wishing cheer leader will find countless opportunities to encourage the stuttering child to adjust to the realities of life.

Stuttering may be cured in adults in precisely the same way, although the process may not be so easy as it is with a child. The stutterer lives in a vicious circle. He begins to stutter because he is afraid to make contacts with his fellows and his stuttering makes those contacts more difficult. The impatience and ridicule of associates increases his timidity and lack of self-confidence. He begins to avoid social contacts and then becomes further involved in an introspective and isolated style of life. The stutterer attempts to wage war with a phantom adversary whom he has himself created. The fact that his stuttering serves a useful but misunderstood purpose eventually defeats him in this vain struggle, when half the effort, if directed toward social adjustment, would cure him in a short time.

TUBERCULOUS PHYSICIANS

and their Contributions

By J. A. Myers

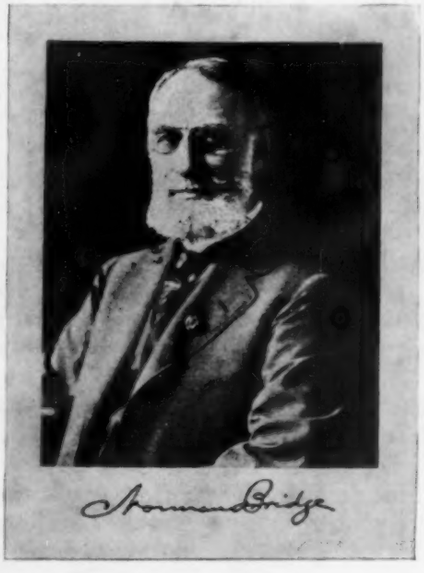
NORMAN BRIDGE was born in 1844. In 1868 he was graduated from the Chicago Medical College, becoming assistant demonstrator of anatomy in that institution the same year. In 1870 he accepted the chair of pathology in the Woman's Medical College in Philadelphia. Two years later, in 1872, Rush Medical College appointed him to the chair of the practice of medicine, and in 1878 that institution also granted him the degree of Doctor of Medicine.

During his long years of teaching Dr. Bridge was also engaged in private practice. He was a member of the staffs of the Cook County and Presbyterian hospitals and gave many hours of his time each week to the poor. He became a member of the Chicago board of election commissioners and of the board of education.

He had examined and treated many tuberculous patients and in 1891 he developed tuberculosis himself. At that time it was customary to send nearly every one afflicted with this disease to another climate, so he and Mrs. Bridge moved to Sierra Madre, Calif. Here he made many excellent friends—among them, Eugene Field, the poet, who was also in poor health.

When Dr. Bridge's health was sufficiently restored he opened an office in Los Angeles. He later bought a home in Pasadena, where he was closely associated with Mr. Sprague, who later made possible in Chicago the Otho S. A. Sprague Memorial Institute for Medical Research.

When the Mexican Petroleum Company was organized early in 1900, Dr. Bridge invested $5,000 in the stock and by 1903 he had been made a member of the board of directors of that company. Two years later Edward L. Doheny and Mr. Canfield, who had been pioneers in the oil business, decided to enter the Mexican field independently. They formed a syndicate of four men and invited Dr. Bridge and E. P. Ripley, the late president of the Santa Fe railroad, to join them. For Dr. Bridge this meant the parting of the ways. Previously he had devoted almost his entire time to the practice of his profession in Los Angeles and Pasadena. The first year after the syndicate was formed he made four trips to Mexico. The syndicate proved a tremendous success in an incredibly short time, quickly hurling each of its members into the multimillionaire class.

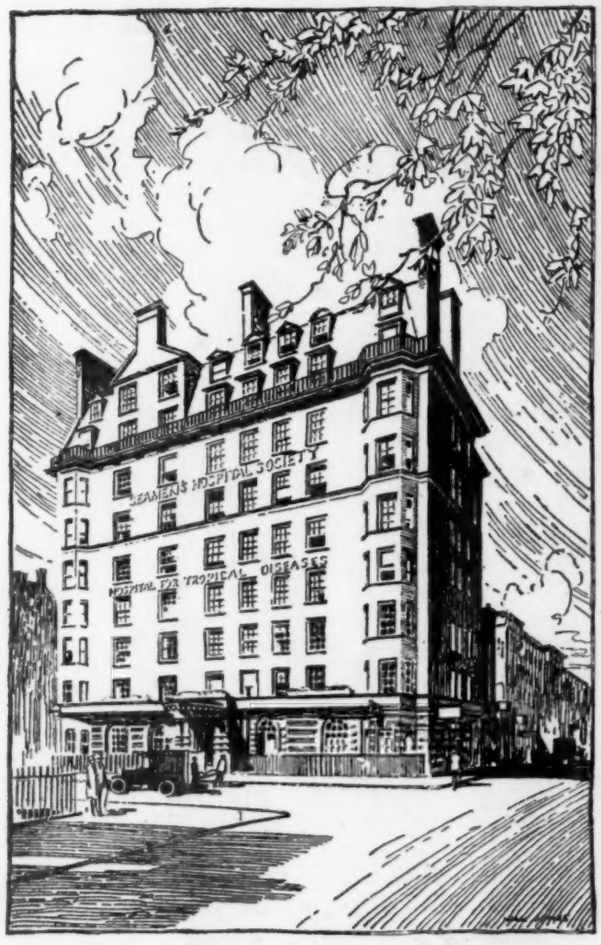


Dr. Bridge became a member of boards of directors of many institutions. Among other activities he wrote his autobiography, "The Marching Years," an interesting and readable book.

When he died in 1925 it was found that his will provided $1,000,000 for the La Vina Sanatorium of Pasadena and a similar amount for each of the following institutions: the Barlow Sanatorium of Los Angeles, Rush Medical College of Chicago, the University of Southern California, the Southwest Museum of Los Angeles and the La Vina Corporation of Pasadena.

Thus again "it is an ill wind that blows no man good." Dr. Bridge in great disappointment was sent to California to die of tuberculosis. Through proper treatment his health was restored in three years, after which he rendered an almost inestimable service through his profession, acquired a great fortune from oil lands and other business interests, served his fellow man and his nation freely and gladly and finally willed the greater part of his fortune to perpetuate institutions that are playing a large rôle in developing and perpetuating service and happiness in the human family.

Tropical Diseases



The Seaman's Hospital Society in London affords treatment to sufferers from tropical disease.

Sir Patrick Manson and a Thirtieth Anniversary

By F. A. Lyon

IN SPITE of the tragic and unprecedented destruction of human life during the World War, it is probable that future generations will recognize that the struggle did more for the development of the science of tropical medicine than any other event in the world's history. More lives have been saved as a result of the conditions that were then experienced than were sacrificed during that disastrous period. The World War came at a moment when the knowledge that had already been gained by the labors of Sir Patrick Manson, Sir Ronald Ross and their many distinguished followers in India and Africa could best be enhanced by practical experience in the illimitable fields then laid open.

In the theaters of war other than Flanders, Italy and northern Russia, the contest was directed against tropical disease. Dysentery in Egypt and Gallipoli, malaria in Salonica, beriberi in Mesopotamia, sleeping sickness, relapsing fever and scurvy in East Africa, proved more deadly than the instruments of warfare. It was here that the modern technic of the treatment of tropical diseases was founded.

One of the most fruitful and promising lines of development in the treatment of tropical disease has been the evolution along scientific lines of specific drugs having a selective action on the parasites of tropical disease. These parasites are so distinctive that it is feasible, in a manner impossible in less concrete diseases, to evolve chemical substances for their destruction.

As a result of the brilliant conceptions of Ehrlich and his associates one of the greatest advances resulting from experiences during the World War was the production of "Bayer 205," a synthetic aniline compound which possesses a remarkable lethal action on the deadly trypanosome of sleeping sickness. Although the action of this drug on artificially infected animals had already been accurately gaged, since 1921 the dosage appropriate to the human organism has been evaluated as the result of the treatment, during that and the two subsequent years, of patients at the Hospital for Tropical Diseases in London.

As a result of this work, it may be said that sleeping sickness has been robbed of its horrors and the efficacy of the drug is now so widely recognized that infected Europeans are no longer obliged to go to London, a curative course of treatment being available in Africa. During 1927 an investigation was made of three cases of young Europeans who had been completely cured of this dread disease in Central Africa after three or four injections of this remarkable drug.

Tryparsamide has been found to succeed in certain cases resistant to "Bayer 205." This is an arsenical compound perfected by the Rockefeller Institute in New York. It is possible to give it in even bigger doses than "Bayer 205," and it is found that in certain cases the cure of the disease is hastened by alternating it with doses of the latter drug.

Perhaps the most important tropical diseases from an economic as well as from a social aspect are malaria and dysentery. So protean are their manifestations that it may be said that in the complete mastery of them lies the emancipation of the tropics for development by European nations.

Evolve Variant of Quinine

The treatment of malaria by quinine, though undoubtedly one of the greatest therapeutic triumphs ever achieved, has certain disadvantages. To some persons quinine is poisonous, for it may adversely affect the heart or the digestive organs. Moreover there are certain forms of malaria, such as the benign tertian, which tend to recur in spite of enormous quantities of quinine.

Once again synthetic chemistry appears to have gained a signal victory. By the attempted synthesis of the quinine molecule, a compound known as plasmochin has been evolved.

The effects of plasmochin on the human body are being tested at the Hospital for Tropical Diseases in London, an institution to be described in some detail later in this article.

The action of plasmochin on the malarial parasite is almost instantaneous and apparently permanent. There is little doubt that by the introduction of this drug a permanent and unprecedented advance in the treatment of malaria will be made and the means for the prevention of this disease on an extensive scale will be at hand.

Dysentery may be caused by a variety of parasites. The most familiar are the bacillary and the amebic forms caused respectively by the dysentery bacillus and by amebas. Many distressing and intractable cases of the former type remain as the aftermath of the World War. In many of them the problem of effective treatment was apparently insoluble, since the destruction of the large bowel was almost complete.

Before 1920, surgical treatment of the large intestine was often followed by disastrous results. The means was found however of alleviating, and in some cases of entirely curing, this condition by making an artificial opening in the region of the cecum and by subsequently washing out the bowel with a diluted hypochlorite solution. The general condition of greatly emaciated patients was thereby rapidly improved, in some cases to an extent for which it had not been dared to hope. By placing the large intestine at rest in this manner, complete restoration of function was achieved.

Amebic dysentery is also a condition of ulceration of the large bowel. The parasite, the *Endameba histolytica*, and its life became better known during the World War, but the results of treatment by emetine were by no means satisfactory or permanent.

An organic iodine compound, which had been utilized in Germany as an antiseptic, was found, when injected into the bowel, to be remarkably efficacious in exterminating the amebas without having a detrimental effect on the patient's general condition. The reports received about the action of this drug were analyzed at the Hospital for Tropical Diseases in London and the good results fully confirmed. The treatment of a case of amebic dysentery has now been reduced from a period of six weeks to one of from ten to twelve days.

Cure Sprue by Transfusion

Sprue is one of the commonest diseases of the tropics and one that is not responsive to treatment in those countries in which it occurs. At present the greater part of the work of the Hospital for Tropical Diseases in London is devoted to the study of this fell disease. Drugs are of little avail in the treatment of sprue if not accompanied by a carefully balanced diet, which consists of liver soup, milk and certain fresh fruits.

The success of the treatment depends to a great extent on careful specialized nursing. In

the pernicious and often fatal form of anemia that accompanies an attack of sprue, it has been found that the transfusion of fresh human blood is the eminently effective method of obtaining a permanent cure. Some of the results obtained by this means in London during the last eighteen months have been remarkable in the extreme.

Sufferers from liver abscess, formerly one of the most dreadful and deadly diseases of the tropics, are now relieved of anxieties of a major operation. Instead of the complicated operation formerly necessary, the pus can be completely evacuated through a small puncture in the skin by Potain's aspirator. The injection of emetine causes the cavity to dry up and the abscess heals completely. Patients can now safely be discharged within a period of three weeks from the date of aspiration and the death rate from liver abscess has fallen to practically nil.

Protein Therapy in Climatic Ills

Protein shocks, obtained by the intravenous injection of proteins foreign to the human body (such as killed cultures of typhoid bacilli), have yielded therapeutic results of the first magnitude in cases of intractable arthritis following dysentery and in the treatment of suppurative conditions such as climatic bubo and even in cases of leprosy. Climatic bubo is a suppurative condition of the groin glands, accompanied by fever, emaciation and debility, entailing formerly an illness extending over several months.

When treated by the excision of the glands it was often followed by a suppurative sinus causing a lymphatic obstruction in the affected leg. Two or three protein shocks in the patient are followed by the absorption of the inflammatory material and complete disappearance of the bubo within a week or two.

It is curious to note that antimony and potassium tartrate, a drug that had been banned for centuries in Europe on account of its poisonous qualities, is now the mainstay of the treatment of those terrible scourges of the tropics, kala-azar, oriental sore, bilharzia and ulcerating granuloma.

In addition to the curative action of the newly devised specific drugs in cases of tropical diseases, these drugs have been found, during the course of their application in those conditions, also to be applicable to some of the illnesses prevalent in temperate climates. Thus the study of the alkaloids of quinine in the treatment of malaria has proved that quinidine is efficacious in certain forms of heart disease.

Tryparsamide, an arsenical drug used in the treatment of sleeping sickness, effects good results in syphilitic disease of the nervous system. The organic iodine compound used in cases of amebiasis has a remarkable action in certain forms of colitis originating in non-tropical countries.

Emetine, the alkaloid of ipecacuanha, which is so efficacious for liver abscess and amebic dysentery, has been widely applied in various pulmonary conditions.

One of the world centers in research on tropical diseases is the Hospital for Tropical Diseases in London mentioned earlier in this article. Next year, 1929, marks the thirtieth anniversary of a landmark in the history of medical science, for with the foundation in 1899 of the London School of Tropical Medicine, under the aegis of the Seaman's Hospital Society, began the organized study of the causation, prevention and cure of diseases peculiar to the tropics. In the last thirty years whole tracts of country have been made habitable for the white man just as if they had been raised from the bottom of the sea.

Sir Patrick Manson may be called the "Father of Tropical Medicine." His achievements in the purely scientific sphere are known to all who follow the profession of combating diseases afflicting the human body, but it is pertinent to the present article to recount shortly the steps he took to apply his scientific labors to practical ends and to state how his schemes have now been brought to fruition.

In 1897, Manson, having attained a position of influence almost unique in his own professional sphere, felt that the time had arrived for the establishment in London of a teaching center for the comparatively new science of tropical medicine.

Twenty-five years of experience have shown that an intensive study of a comparatively small number of selected cases in London achieves more for the therapeutics of tropical medicine than is possible from a more superficial survey of more abundant but less varied material in the tropics themselves.

The Hospital for Tropical Diseases

Situated in the world's greatest port, the Hospital for Tropical Diseases in London attracts to itself clinical cases from all parts of the tropical world visited by the mercantile fleets of all nations. In this manner the most varied assortment of human ills can be collected together in one building, resulting in such a concentration as is hardly possible in any other port in the world. The principal centers for the study and treatment of tropical diseases are all situated at ports where tropical produce is handled, such as Hamburg, Liverpool, London, New York, Panama and Rotterdam.

Although the vital necessity for the instruction of medical men in the specialized science of tropical medicine before their departure to the tropics is now unquestioned, it was not so at the beginning of the century, even in the country which has most to gain by the practical realization of this necessity. The whole of

Mercantile fleets of all nations visit the port of London.

Manson's experience had emphasized to him the inadequacy of theoretical study unaccompanied by practical work at the bedside, at the autopsy table and in laboratories supplied with fresh specimens. The new school of tropical medicine must, he saw, be attached to a hospital. Moreover, that hospital must have clinical material of a tropical nature.

Administered by Seaman's Society

The satisfaction of these cardinal demands was granted to Manson by the establishment in 1899 of the London School of Tropical Medicine. It was attached to the Albert Dock Hospital, one of the branches of the Seamen's Hospital Society into whose hands its administration was entrusted. No other organization was so well fitted to shoulder the burden of fostering the cause of tropical medicine. For close on a century that society had by voluntary contributions been enabled to give free treatment to seamen of all nations and had carried out its work in such a manner that seamen, more hesitant than any other beings to seek admission to a hospital, eagerly took advantage of it.

At the close of the World War, through the cooperation of the British Red Cross Society, the Seamen's Hospital Society transferred its tropical work in hospital and school to the present establishment in the center of London, thereby hastening the day when that society would be able to afford expert treatment to all sufferers (not only seamen) from tropical disease who came into the port of London.

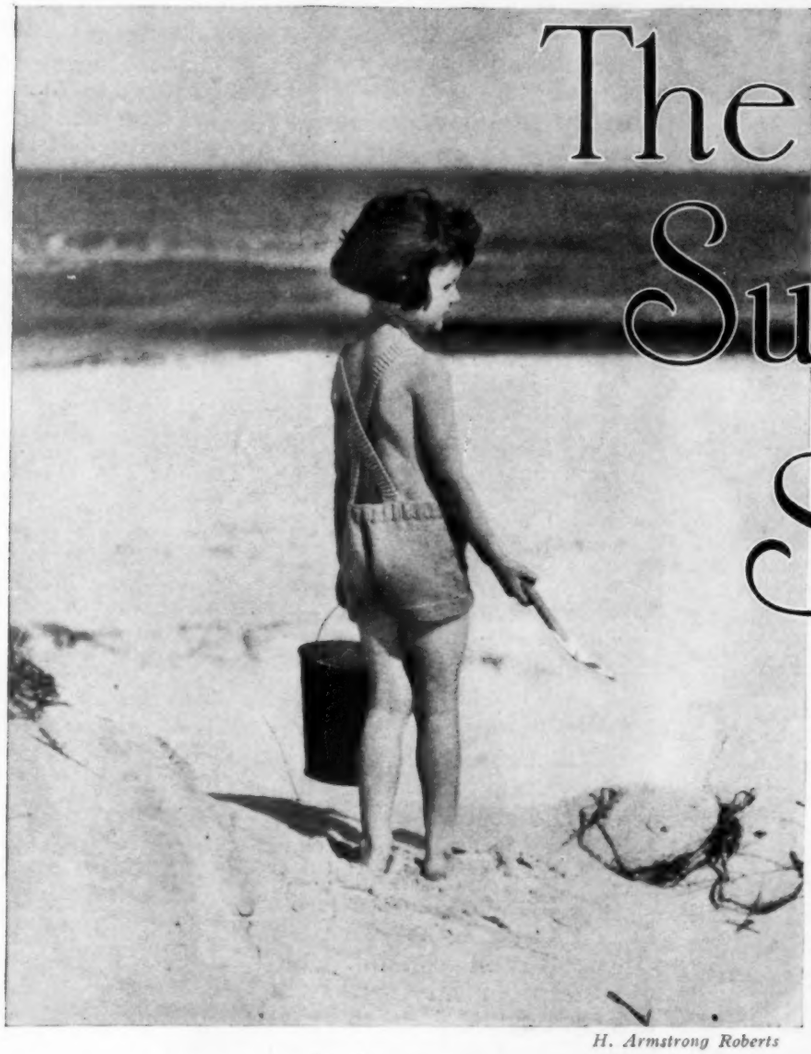
Practical information about the Hospital for Tropical Diseases is now being distributed in all tropical regions. The hospital is maintained by voluntary contributions and the widespread support accorded to it from all parts of the globe not only enables all seamen and other necessitous persons suffering from tropical disease to receive expert treatment at no cost to themselves but it reduces the charges for private rooms to a figure that does not overwhelm patients of moderate resources.

Another activity of the Hospital for Tropical Diseases in London, which closely affects the welfare of all dwellers in the tropics, is the organization of lectures in tropical nursing and hygiene for nurses. Two courses in tropical nursing and hygiene are given each year.

A gift of $2,000,000 from the Rockefeller Foundation in 1924 for the establishment of the London School of Hygiene and Tropical Medicine induced the Seamen's Hospital Society to hand over to that new body the school that they had with such signal success administered for a quarter of a century.

Unrivaled Material for Study

The progress of research in tropical medicine will undoubtedly be furthered under the direction of a body strengthened by the support of the Ministry of Health and the University of London, which are represented on its board of management. The Hospital for Tropical Diseases continues as heretofore to work in the closest cooperation with the school, but remains under the administration of the Seamen's Hospital Society. This body with its excellent facilities for collecting in its wards the unrivaled clinical material that is to be found among seamen continues to place that material unreservedly at the disposal of the teaching staff of the school, which thereby enjoys facilities not to be obtained so readily by any other means.



The Sunshine School

By Philip S. Potter

H. Armstrong Roberts

THE Sunshine School of Berkeley, Calif., was established in 1926 as a community project for the purpose of building up the resistance of children who were in need of more sun and rest than they were obtaining in their daily program.

Not for Sick Children

Sick children are not admitted to the Sunshine School. It is for those who have been persistently underweight and undernourished. The school also accepts the pale, nervous child who has been out of school a great deal because of his condition or because of frequent colds and who presents good soil for the development of the tubercle bacillus.

Children convalescing from serious illness who are being kept out of school for an unnecessarily long time or are being forced to return to school earlier than their weakened condition permits are among the pupils at the Sunshine School. Moreover, it accepts those with serious physical handicaps to whom the regular school curriculum may be harmful at times. These children need especial attention designed to build up their reserve and to enable them to lead normal lives in as short a time as possible.

Previous to the establishment of the Sunshine School it was the custom to send a certain number of these substandard children to a preventorium. With the city's allotment of only nine beds and a constant waiting list of from fifty to sixty children, many needing immediate attention, there was a definite need for such a school as a part of the public school system. In urgent cases the pupils could be sent to the preventorium sooner and could stay longer, while those on the waiting list whose condition was less urgent could be put under immediate supervision in the special school and given a start while awaiting their turn.

Convalesce at Sunshine School

As time went on it was found that the preventorium children could be discharged sooner, as they could go directly to the Sunshine School to complete their convalescence.

Soon after the opening of the school its value became evident. The preventorium waiting list was reduced to less than ten children and about

one in ten of those waiting their turn could be taken from the list. This greatly reduced the cost of bringing these children back to health.

Children Maintain Improved Condition

Another benefit is that the physical condition of the children is maintained after their discharge from the preventorium. Before the establishment of the school a large percentage lost weight and failed to maintain their gains in health when put on the program of the regular school. When they finished their convalescence at the Sunshine School they continued to grow stronger and to gain weight.

A building of the public school system, centrally located and accessible to the car lines, was selected for the new school. One wing was altered so as to provide a classroom and two sleeping rooms on the first floor. The sleeping rooms were furnished with iron cots, mattresses, pillows and light blankets, the latter being used during the period of air exposure at the beginning of the school term or for new pupils.

In one corner of the playground a raised platform with protected sides was built for the sun treatments and divided in two parts, one half for the boys and the other half for the girls.

The children selected come through various channels. Some come from the preventorium, some through the school nurses, some from the private physicians and some through the parents themselves who have seen the improvement in their neighbors' children after a stay at the Sunshine School.

Before being put on the Sunshine School list, these children must come to the Sunshine School clinic, which is held every Saturday morning. Here they are given an intensive physical examination. Tuberculin tests are made and examination of the urine and stools, the latter consisting of six daily specimens. The blood is tested for its degree of anemia and when thought necessary a blood examination is made. In some cases x-ray examinations are ordered. Recommendations are given for the correction of defects found, for the child must be made free to gain before he enters the school.

School Has Grown Apace

Only children of the first six grades are eligible. At its inception the Sunshine School had forty pupils, two teachers, a nurse and a physician. Because of the increasing demand the school was enlarged to care for sixty pupils, and another teacher and nurse were added.

When the children come to school in the morning each child's temperature is taken with his own thermometer. If there is any unusual rise the child is sent home and observed until it is certain that he is not taking a contagious disease. Later in the day the temperatures are again taken, for while sun is sun it is also a drug. A slight rise may be expected after the sun bath, but if the temperature does not return to normal

Children at the Sunshine School spend an hour a day on the sun platform, where a nurse reads to them and graduates the sun bath. They wear sunshine suits of the type shown here, consisting of trunks for the boys and trunks and bibs for the girls.

later and is accompanied by loss in weight without any evident reason, it means that the sun treatment is being pushed too fast or is not being well borne by the particular child. One has to be careful of the "tow heads," as they will not bronze but will develop a bad case of sunburn.

Study and Rest Alternate

After the morning temperatures are taken, the children don their sunshine suits, which consist of trunks for the boys and trunks and bibs for the girls. They have an hour's classroom work. When this is over they get a pint of orange juice and then go to the sun platform for an hour. Here the nurse reads to them and graduates the sun bath. After sun treatment they go to the rest rooms for their sleep hour. During this period absolute quiet is required and no visitors are allowed.

At the completion of the sleep period the children are ready for their supervised lunch. Many children who have not eaten well at home develop an appetite and call for "seconds."

Two study periods and another sleep hour take up the afternoon. At the end of the school day the children have a glass of milk and some crackers. This is partly to prevent them from going to the corner candy store after school or picking up indigestible food at home.

The Weekly Examination

The physician visits the school every Friday morning. He inspects the charts and health records, consults with the nurses and confers with mothers who come with their health problems. He also examines any children who may need special attention.

If a child does not gain weight and no physical conditions can be found to account for his condition, the nurse is sent to his home to investigate. Generally after her visit the weight begins to ascend. She finds in some instances that the children are hurrying to school with an inadequate or improper breakfast or that they engage in too many activities outside of school hours, such as dancing lessons or selling papers on the streets until nearly midnight.

A constantly increasing weight line, however, is not the object to be attained. What is more important is the general improvement in the physical condition, an increase in pep, a good appetite, progress in school, a hardening of the muscles, a decrease in nervousness and fewer absences on account of colds or other illnesses.

Child's Discharge Is Carefully Considered

Before a child is discharged from the school, a committee reviews his charts and health and school progress. This committee consists of the school principal, teachers, nurses, social service worker and physician. This consultation is felt to be necessary, for while the physician may be satisfied with the health progress, the social worker may have information on the home conditions that forbids the child's discharge to the regular school curriculum.

The children who are discharged are advised to report to the Sunshine School clinic at stated intervals in order to note their health progress in the regular school.

Since the Sunshine School is a public school it is accessible to all children regardless of financial status. It also increases the community's opportunity for health education.

Expect Further Expansion

Although the school has been in existence only two years, the public is already awakening to its value and sooner or later a further expansion will be necessary. It is believed that the value of this school lies in its being a part of the regular school system. One almost dares hint the slogan "Every School a Sunshine School."

Gum and the Graces

"I REALLY must be going," said the friendly visitor, bestowing a parting smile on the small daughter of the family.

"Oh, good-by! Now where did I park my gum?" replied the *enfant terrible.* Yes, she really did, that child. She was not allowed to chew her gum when there was company and the gumless period of the visit was a severe tax on her youthful calmness and serenity.

Wherefore the great American exercise of gum chewing? Those ubiquitous disseminators of doubtful knowledge, the advertisements, tell us that chewing gum increases the flow of saliva. Saliva being one of those gifts of lavish Nature that we have always with us, it would seem unnecessary to augment its quantity by artificial means. If the adequate supply of saliva is not normally forthcoming by reason of some disease process, treatment more drastic than mere gum chewing is clearly indicated.

There is the gum that is guaranteed to whiten the teeth. Perhaps it does, but why whiten the teeth with gum when the drug stores are teeming with any number of tooth pastes equally capable of beautifying the mouth by proper application in the privacy of one's bathroom. One does not polish one's nails in public, at least most people do not, so why polish one's teeth at inappropriate moments?

And the gums that profess to possess laxative powers! Laxatives are all very well in their place but a stick of chewing gum is distinctly an odd place for a drug. If one must assist a struggling organism to accomplish its daily feat of adequate elimination, it is the place of the physician to supplement the proper dietary regimen with such carefully chosen drugs as he considers essential.

The breath-sweetening gums are less noxious. But a breath so malodorous as to require artificial sweetening is indicative of an imperfectly functioning alimentary tract, an ill-kept mouth or a disease condition of nose and sinuses. A perfumed breath may deceive the owner into believing that all is well with the organism, but the underlying disease goes on regardless of the fact that the outward evidence is destroyed.

Actually, gum is seldom chewed for the flavor or the effects, it is chewed for the sake of chewing. The habitual gum-chewer derives a solace from the rhythmic activities of his facial muscles that nothing else can supply. In addition, it provides him with a mode of emotional expression uncomprehended by the uninitiated. Anxiety, perturbation and anger are accompanied by a quickened movement and a jerky rhythm with occasional sharp snaps from the long-suffering gum. A contemplative mood or a tendency to depression finds expression in a retarded tempo and the circular motion employed by the ruminating cow.

Gum chewing in its most virulent form is nothing less than an addiction. Its victims deprived of their gum become nervous and uneasy until they find a thread or even a finger nail upon which they may surreptitiously chew. Luckily it is an addiction that is an end in itself. It does not lead to increased doses nor does it

produce serious effects. The constant mastication introduces an undue amount of air into the stomach (along with the widely advertised increased saliva), but it is to be supposed that the addict soon adapts himself to this minor discomfort.

The gum-chewing child is an unesthetic sight, for the chewing of gum, even in the most conservative quantities, is something that cannot be done gracefully. A constantly working jaw, be it ever so rhythmical, can destroy the beauty of the most charming face. The poor unfortunate who becomes an addict in childhood is only too likely to grow up into a gum-chewing woman or a tobacco-chewing man.

The perpetual public chewing of gum or its substitutes cannot be classed as a crime or even as a misdemeanor. It has no luridly injurious effects on mind or body. It is merely a useless and unpleasant habit. It is an offense against society to chew gum in public and it is such a silly habit that there is no sense in doing it in private.

The child who depends on the mastication of a wad of gum for his sense of well being cannot be expected to develop with ease the desirable graces of adulthood. The woman of social poise and the man of business stability do not conclude their receptions and conferences with the question "Now where did I park my gum?"

Finding Adventure in Our Work

MANKIND has two apparently contradictory hungers—the hunger for safety and the hunger for adventure, writes President Glenn Frank of the University of Wisconsin in the *National Safety News*.

Explorers are probably more interested in the adventures of discovery than in the achievements of discovery. When the modern man is shut up too long in an office the call of the wild becomes too strong for him and he sets out on some seemingly foolish adventure. Professional men climb mountains and staid business men risk their lives in big game hunting in the jungle.

When these men fall afoul of bad fortune and pay the price of their adventure with their lives, one wonders why men do such foolish things. We forget, observes Dr. Frank, that man is rational only about certain things and at certain times. He is still moved by memories of things his fathers did when the world was young.

The reconciliation between these opposing impulses in man, Dr. Frank suggests, lies in safety for men's bodies and adventure for men's minds. Men must find satisfaction and adventure in their work as well as outside of it.

Men do not brave dangers in order to break their heads, but to keep their hearts from breaking under monotony.

Our ancestors practiced adventure for the same reason that modern men practice professions, for safety from danger and for their daily sustenance. The bravado of adventure that is a vacation luxury nowadays was a daily necessity to the ancient man.

Humanity is hag-ridden by the ancient tradition that work is a curse, Dr. Frank continues. This feeling means a bleak and barren existence for the citizens of an industrial civilization in which three fourths of life centers in work. Happiness cannot be switched on like an electric current, after office hours.

Men's work must be made a means of self-expression as well as a means of self-support. The safety movement will take care of their bodies, but it will be a sterile thing unless an industrial statesmanship gives adventure to men's minds. They must be rid of the notion that happiness lies behind the barricaded walls of leisure. Unless they find pleasure in their work, there is small chance that they will find it outside.

Dr. Frank sets forth four requisites of work, as follows:

First, difficulty enough to give a sense of adventure and a sense of mastery when the work is done. In this way is provided a moral equivalent for that mood of adventure and thirst for conquest that modern man has dragged along with him from the days of savagery.

Second, routine and variety mixed in the right proportion. The amount of variety in our work must be adjusted to the amount of creative ingenuity we possess. A task that overtaxes one's ingenuity may be as unhappy as a task that is all routine.

Third, a sense that one is creating something and can claim it as a personal accomplishment.

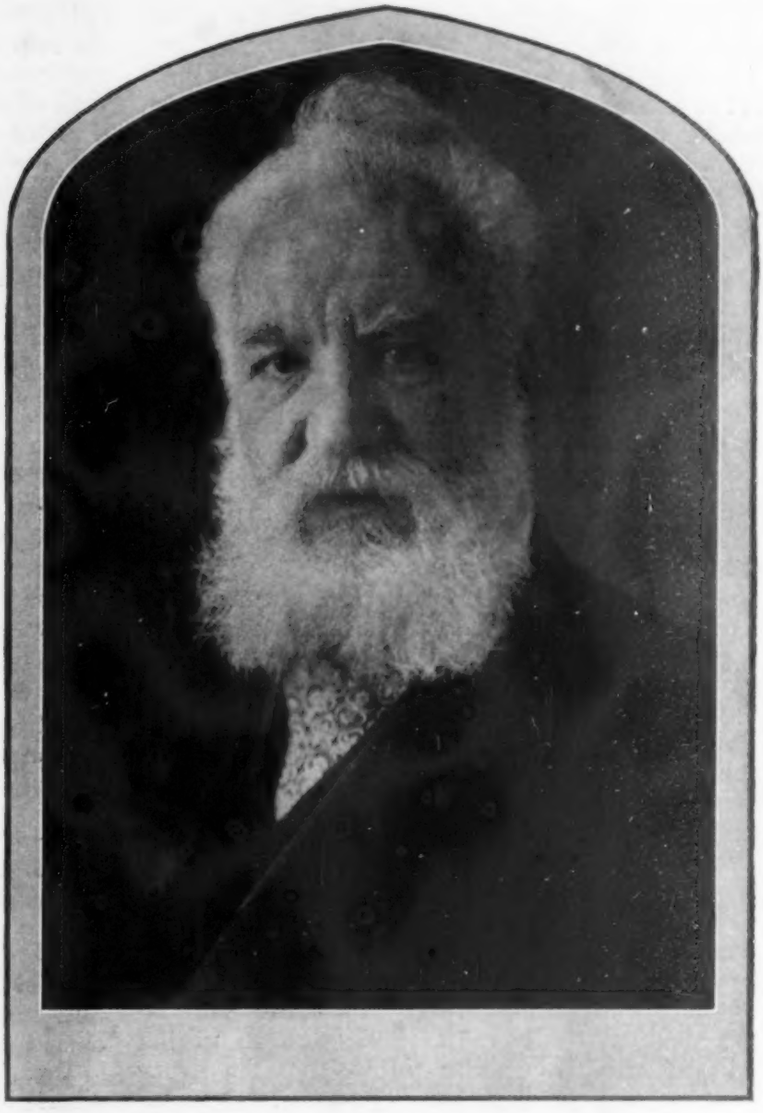
Fourth, congenial associates.

It is the problem of the individual to seek the work that will give him these four things. It is the problem of industry to organize all work so that it will measurably assure these four things to all workers.

Advice to the Hard of Hearing

By

Wendell C. Phillips



Alexander Graham Bell, inventor of the telephone, was first to spread publicly the gospel of lip-reading for the hard of hearing.

THE majority of adults over 35 years of age have defective hearing at least in one ear. More than three million public school children in the United States show more or less defect in the hearing function. A peculiar psychology seems to predominate in cases of acquired deafness. Every handicap in human experience has its psychologic bearings, every calamity its woes, but none except obvious fatal diseases provokes more despair, hopelessness and depression than defective hearing. Loss of sight never depresses its victims as does a defect in hearing. The psychologic aspect of acquired deafness is the result of the more or less rapid destruction of the power of free human communication in business, society and even in the street and the shop.

In the young the waste of manpower and human efficiency resulting from acquired deafness restricts education or at least greatly adds to its difficulties. Every school child handicapped by acquired deafness, no matter how slight, must in his quest for education master the art of lip-reading. Other things being equal, the child with defective hearing who is able to lip-read is thereby relieved of much of the anxiety and strain in his efforts to hear, and is thus able to complete his education with less nerve strain. Furthermore, lip-reading once acquired remains an ever increasing source of help in the struggle to gain knowledge, to gain a livelihood and to converse with one's fellowmen.

Acquired deafness in the young restricts the choice of vocation. Many occupations in life must necessarily remain closed to the victims of even partial deafness. On the other hand, several of the most useful occupations and professions offer wide opportunity for success to those handicapped by deafness. Until recent years, acquired deafness was classed as an affection of adult life. We now know that, basically at least, it commences in early life or even in infancy; hence, the importance of early detection and treatment, as well as early decision regarding the life work of these children in order to avoid the grilling experiences surrounding retraining, rehabilitation and reeducation. That this can be done is proved by the

following account of a child whose case was taken in time:

A little girl's hearing impairment was slight yet it was marked enough to be noticed by her teachers when she was 12 years old. Lip-reading was given immediately in the educational clinic of the New York League for the Hard of Hearing, so that the child acquired a workable knowledge of lip-reading before her graduation from elementary school. Continued instruction and practice in lip-reading went on from the time when she began her lessons. Twice the parents decided to take her to quacks for treatment, but the child herself had every confidence in the social workers who had helped her and with their help her parents were persuaded to drop the idea.

Economic pressure at home made it inadvisable for the girl to go to high school but the League, through its employment bureau, was able to guide her into a sound vocation for which she was duly trained. She is now at the age of 17 a skilled maker of artificial flowers and she also attends evening high school. During her vocational training and the apprenticeship for her trade, lip-reading instruction was substituted for continuation school work. In spite of a marked decrease in her hearing between the ages of 14 and 16, this child leads a normal life and experiences no difficulty in keeping up with the other students in high school. She is able to sustain her social life happily and has no psychologic scars induced by deafness. The means of attaining this successful readjustment was so simple and so practical that I have no hesitation in urging parents and teachers to follow them in every case of incipient deafness. They are: (1) intensive training in lip-reading, and (2) sound vocational guidance.

Boy's Personality Is Warped

The slight hearing impairment of a boy of 11 was ignored by parents and teachers. At 15 he was a tired, sallow-cheeked, cloudy-eyed youth about to graduate from elementary school and enter high school. Lip-reading has been made available to him, but this assistance has come too late to be of value in the studies. A hearing aid is out of the question because his type of deafness does not respond to any known device. This boy shuns his schoolmates and resents kindness offered to him. He is developing a pugnacious attitude and is not assimilated into his home environment.

The boy's father awoke to the situation recently and set out to solve the problem. He was advised by the boy's teacher to have him transferred from the general curriculum to the commercial course. Six months have passed and this boy is still unable to make the grades. His father was advised to take him out of school and put him to work, and the boy eagerly seized the opportunity to escape from what naturally appeared to him as a useless bondage. After a year of drifting in and out of blind alleys with a work record of less than two weeks in any position, it is no wonder that he is seriously embittered. His deafness is considerably increased. He has developed an inferiority complex and a nerve disorder that makes it impossible for him to concentrate sufficiently for the acquirement of lip-reading. This is all the more pathetic because he strives desperately to become a lip-reader. Whither is he headed?

The waste of manpower and human efficiency when an adult is forced to change his occupation is lamentable. Such a change involves great sacrifice and great economic loss as a result of the retraining, rehabilitation and reeducation attendant upon the preparation for a new occupation. Whenever this calamity has to be faced by the deafened adult it becomes a well nigh insurmountable barrier. Yet he must overcome it.

Poisoned by Fatigue

Fatigue has a meaning all its own in deafened persons. Fatigue poison, even in the most capable rehabilitated person, remains a definite problem. These persons can support their working lives only at the cost of daily exhaustion and almost entire giving up of recuperative recreation. All this tends greatly to limit the mental outlook. It is not unusual to hear overstrained deafened persons complain that they are obliged to sacrifice their entire lives—social and cultural—to the earning of a living, which carries no leisure or beauty with it.

Two examples may be cited. The first is a school teacher in perfect health except for slight deafness. She says: "I find that all I can do when 3 o'clock comes is to go home and rest. I keep up my friendships with people of normal hearing because I must, but they never dream what it costs. Last year I even tried to take some extension course after school, but I had to drop out. After straining to hear all day, I either fell asleep at classes or else my hearing was so worn that I simply couldn't hear and I became very nervous. It seems to me that we deafened people live two days in one."

The second case is of a young man working under conditions so favorable for a deafened man that they may be called ideal. As a chemist he works in the laboratory all day and is not required to come into contact with many persons, although he has to take a limited number of telephone calls daily. He is an excellent lip-reader and also uses a hearing aid with ease. He finds, however, that it is utterly impossible for him to keep up any social contacts, because the labor of playing with hearing people takes so much out of him that he has no energy left for his professional work. He is interested in

the theater but this refreshing and stimulating pleasure has also been abandoned. This man is alive to the necessity for keeping up his general health and he has a physician's opinion that outside of his deafness his health is perfect. He says: "Carrying on with deafness is such a hard job that one has no strength left to live."

I know of no parallel except possibly the almost universal unrest of the post-war period. To live in the present age is a struggle even for the unhandicapped; it is a terrific struggle even to the death for the handicapped ones. In view of the handicaps to be overcome by the deafened, it is doubly important that deafened people above all others obey the laws of health and resort to all reasonable measures to eliminate every infection from their bodies, if for no other reason than that research has not yet made their handicap conquerable. Happy the individual who, even though handicapped, views life in the light of the marvelous triumphs of the blind Milton and the deafened Beethoven.

Quacks Prey on the Deafened

Let me warn deafened persons to avoid the blandishments of all forms of advertised quackery. The qualified otologist (a specialist in diseases of the ear) with his scientific training and broad clinical experience is bound to be familiar with every procedure that offers any hope of improvement in hearing. The qualified otologist never advertises in the public press. The prayer of the deafened should be: "From much vaunted ear oils, from devious implements to be inserted into the auditory canal, from 'bunk' finger surgery, O Lord, deliver me." A good general rule for deafened people is to disregard and ignore any and all advertisements claiming to cure deafness.

Solving the problem of acquired deafness in all its phases is a stupendous undertaking. General health conservation programs have become the order of the day, and they are successful only so far as they apply the results of research. If the problem of acquired deafness in its various types and forms is to be solved, science must find its way to victory through the gateway of research. During recent years great advances have been made, particularly in the treatment of suppurative diseases of the ear, and similarly in the prevention of deafness so far as it pertains to a better understanding of infections involving the upper air passages.

Research in diseases of the ear necessitates both clinical and laboratory investigations. Ear clinics, in general, deal specifically with the treatment of ear conditions; they care only for patients who voluntarily seek relief. They are usually overcrowded and the time of the attendant must be fully devoted to the treatment of the disease. Little time is permitted for investigation. It is possible that by reorganization a good deal might be accomplished along the lines of research even in clinics of this kind.

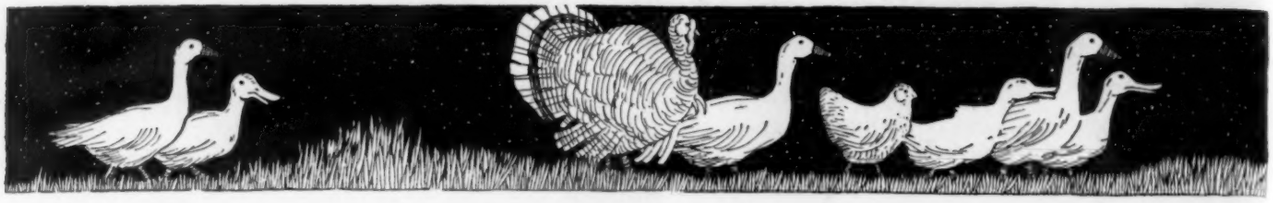
But clinics devoted solely to prevention and research are necessary and they must be organized along laboratory lines with full time workers devoting their entire energies to research clinical investigations. Thousands of school children have hearing defects for which no medical advice of any kind has ever been thought necessary either by parent or teacher. Such patients may never be expected to consult otologists or to visit ear clinics until deafness forces them to go. Nevertheless, these are the very children who should form a large percentage of those to be investigated under the auspices of the research clinic. This particular class of patients should constitute the chief source of material.

Several such clinics have been started on a small scale by specialists who are willing to sacrifice their time for a great cause, even without the necessary financial backing. I refer to such clinics as are conducted by the New York League for the Hard of Hearing under the direction of Dr. Edmund Prince Fowler and to the Rochester School Clinic conducted by Dr. Franklin W. Bock.

Even these small scale clinics, a short time in existence, have shown amazing conservation results.

Studying Deafness in the Laboratory

For many years individual otologists in various parts of the world, especially men possessed of the investigating spirit, have devoted a good deal of study to the laboratory phases of deafness. These studies have been more or less sporadic and have lacked financial support. Recently, however, considerable organized effort has been made, notably by the American Otological Society and the department of pathology of the Johns Hopkins Hospital. No doubt similar efforts are being made in other parts of the world. All this is necessary, but it seems imperative, in order to advance the cause of otologic research at a reasonably rapid rate, that a world survey should be made in order that the full status of the problem may be fully ascertained and formulated. Such a survey might result in a correlation of the world efforts, and a possible standardization of the work in a manner that would not only produce better scientific results, but also command abundant financial support to cover all expenses incident to solving the problem of chronic progressive deafness.



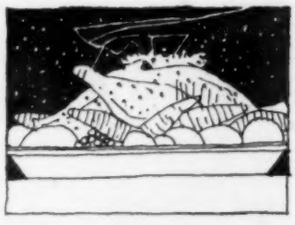
How to Choose FOWL *for the* FAMILY

By Emil G. Glaser

AS A healthful food poultry meat is a leader. In order that the meat may be more tender, no fowl should be cooked and placed on the table the same day it is killed. It will require at least twenty-four hours for the muscles to relax. The old country way of running out in the barnyard to kill a chicken for dinner when the minister made a sudden appearance might be well enough for the minister, but not so suitable for the old folks with poor teeth and an expert knowledge of what quality is in a carcass.

There is a marked difference between white and dark meat. The white meat has much less fat and a correspondingly large quantity of protein. The dark meat has a much larger proportion of meat bases, but as these bases are often considered of little value, the white meat is to be preferred to the dark.

While still young, but full grown, the chicken is best suited for food. As it grows old the flesh loses its flavor and increases in toughness.



The reason fat birds are better than unfatted is that globules of fat are distributed throughout the muscles, displacing to a considerable degree the moisture found therein. Therefore the bulk is not only increased, but when the flesh is cooked the fat does not evaporate to the same extent as does the water. Melting, the fat softens the tissues and makes the meat more digestible and of finer flavor.

Well-grown birds with masses of moderately fat flesh are more economical than either young or overfattened ones. At ordinary retail prices full-grown fowl is the only poultry that compares in real economy with the cheaper cuts of beef and pork. But young chicken, medium-sized turkey, goose, duck and guinea fowl are often as economical as the more expensive grades of other meats. Some full-grown birds can by proper cooking be made to equal the meat of young fowls.

One way of testing the age of dressed poultry is to take between thumb and finger the end of the breast-bone farthest from the head and attempt to bend it to one side. If it bends easily, the bird is very young (the same applies to a green goose). If the bird is a year or so old, the bone will be brittle; and if the bird is old, the bone will be hard to bend.

The feet of freshly killed poultry feel moist, soft and limber, and if the head is allowed to remain on the carcass the eyes will look full and bright. As the fowl stales the eyes shrink and the feet become hard and dry. If the feet show a bright, smooth surface youth is indicated, but when the feet are shriveled the fowl is old. If the body turns greenish and dark, decomposition is under way.

The feet and bill of a young goose are yellow, but if the bird is old its feet and bill will be reddish and bristly. If the feet of a dressed goose are not pliable, it indicates that the bird has been dead a long time.

The flexibility of the windpipe in ducks and geese denotes youth. When the bird is young the windpipe may easily be squeezed and moved; in old birds it is rigid and fixed.

Turkeys under a year old have black feet. From then up to three years of age, the feet become pink, and after that they gradually turn gray and dull.

In squab pigeons the flesh looks whitish, but in older birds it becomes purple. Older birds, too. have red feet.

What Becomes *of the* Mental Patient?

By L. D. Hubbard

EVERY hospital for mental diseases bears, in the minds of the public, a wholly undeserved reputation for being reluctant to release its patients. The remarks of fond but uncomprehending relatives suggest that physicians and nurses reap a golden harvest from every patient that the institution can by hook or by crook hold within its gates. Each day some heartbroken mother, husband or daughter cries, "I didn't want to bring her here. They say if she once gets in she'll never get out."

Each departure of a patient to take his place again in the outside world brings a feeling of thankfulness to those in authority.

Such an attitude toward a public institution is absurd on the face of it, for a very little inquiry on the part of the doubter will show that these hospitals are almost universally overcrowded and understaffed. As a consequence, each departure of a patient to take his place again in the outside world brings a feeling of thankfulness to those in authority both for the benefit to the patient and for the relief to the overburdened wards.

Then come the pseudoscientifically minded visitors, who are bound to ask in the course of their inquiries, "What percentage of recoveries do you have?" Then forth they go to spread abroad the gloomy tidings that only such-and-such a small percentage of so-called insane patients get well, giving no heed whatever to the various factors that go far to mitigate the apparent hopelessness of the bare figures. Thus is perpetuated the tragic fallacy that those who once enter the portals of a hospital for mental diseases are lost forever to family and friends.

It is worth while to consider what actually becomes of those who are so unfortunate as to fall ill with a mental disorder. Take for example the women patients admitted to one of the foremost public hospitals for the care of the mentally ill during one year. I shall outline the fate of these people up to the following spring.

The patients admitted to the women's service during the year 1925 numbered 259, of whom 176 were white and 83 were colored. As two of these were admitted twice during the year, there were 257 women actually admitted to the hospital, 175 white and 82 colored. Twelve of these patients were discharged shortly after admission because observation on the part of the physicians showed them to be of sound mind. Thus the number of mentally ill women admitted was reduced to 245. The range in age was from 12 to 84, with thirty of them more than 70 years of age. Twenty were between 60 and 70 years old. Thus with more than a fifth of the patients over 60 years old, the outlook is not very hopeful to start with.

Mental patients admitted to the hospital when they are over 60 years of age are, in the vast majority of cases, suffering from organic brain disease—actual destruction of brain tissue—or from the ravages of senility. It is not to be expected that such patients will recover, whether in a general hospital, in a mental hospital or at home, although they may improve sufficiently to enjoy visits at home or automobile rides with family or friends.

Another element unrelated to age or type of disease and reflecting in no wise on the efficiency of the hospital is the summary removal therefrom of nonresident patients soon after admis-

sion. It is, of course, expedient that the expense of caring for mentally ill patients should be borne by the state in which they claim residence rather than by the state in which they happen to be sojourning when stricken. This was the case with twenty-eight patients, who were of necessity discharged before recovery, in fact before the hospital had adequate opportunity to treat them.

Now it happens to be a law in some states that a patient showing signs of mental illness must appear in court after a brief period of observation so that he may be committed to the hospital by a jury of laymen. Thus five patients were discharged by a well-meaning jury unlearned in the diagnosis of mental disorder. Every one of these patients was considered by the hospital authorities to have shown no improvement from admission to discharge, and several have already returned for further treatment.

Forty-five discharged patients are thus accounted for, and still no mention has been made of patients the hospital was allowed to treat. Nine were removed from the institution by their families for treatment in other hospitals, or, in the case of two old ladies, for care with trained nurses at home. One old colored woman, unable to care for herself, alone in the world as she was, but gentle, kind and sweet-tempered, was taken by the Home for the Aged. The seven remaining discharged patients rejoiced in complete recovery and, so far as they have been heard from, are making good in the world, as well as if not better than before.

There remain 184 patients not yet accounted for. Death claimed twenty-nine. With thirty of the patients admitted at over 70 years of age and another twenty at over 60, the twenty-nine deaths are scarcely to be wondered at, although of course what with a generous sprinkling of organic brain disease and the inevitable occurrence of influenza and pneumonia cases during the winter, not all the deaths were among the very aged.

Patient Sent Home on Visit First

One hundred and fifty-five, then, remained on the hospital rolls, but this does not mean that they are all in the institution. The return to the outside world must necessarily be a careful one and is accomplished by means of gradually lengthening visits during convalescence, such visits being regulated by the patient's reaction to the stress and strain of every day life.

If convalescence progresses steadily, the patient is finally sent to her home for an indefinite visit. This gives her much the same freedom as if she were discharged, but so long as she remains on the hospital rolls the social service department keeps in touch with her, stands ready to help her in securing work if necessary, advises as to improvement of her home conditions, and sees that any physical difficulties that may crop up are attended to at once.

In addition there are such patients as will probably never fully recover but are able to enjoy life at home under the careful supervision of their families, so long as circumstances are favorable. Fourteen patients are on such protracted visits to their homes. Some have taken up with renewed energy the care of their homes and families; others have found congenial work and are once again economic assets in the community.

One hundred and seventy are still in the hospital, but of these, fourteen already go home for short visits, spending the day or the week end with relatives. Several more have the pleasure of automobile rides, picnics or occasional trips to the theater with a nurse. The rest are still in need of active treatment in the wards.

Convalescence Is Slow

Mental illness is often prolonged and convalescence slow, so that it is to be expected that a goodly proportion of patients admitted during one year would still be under treatment during the first few months of the next year. Of course some of these patients are suffering from organic brain disease and stand no chance of complete recovery. Others are senile and will require hospital care and nursing the rest of their lives. Twenty-five women belong in this class. Seven more are mentally defective and are merely awaiting the completion of an institution especially designed to care for such cases. Another large number are doubtless so firmly in the grip of their malady that they will never be able to take up a normal life again, though there may be much pleasure still in store for them within limits. But a goodly group of patients are going through the acute phase of their illness and stand as good a chance of eventual cure as those who have already been discharged as recovered.

It is apparent then that an entirely false impression is gained from the bare statement—of 259 admissions in a year, seven were discharged as recovered by April. Plainly only 212 patients were available for treatment, and fifty of these were over 60 years of age.

Only seven have thus far been discharged as recovered, it is true, but fully twice that number are leading happy, useful lives in their homes, carried on the hospital rolls only in order that they may benefit from the assistance of the social service department. An equal number are just beginning their trial trips out into the world again, and there is every reason to believe that they also will soon be ready to assume their customary places in the community.

HYGEIA
THE HEALTH MAGAZINE
Published by the American Medical Association
535 North Dearborn Street, Chicago

Plain Facts about Health and Disease

WHAT FOOLS THESE MORTALS BE!

Three persons are dead here today as the result of an attempt to restore a 7 year old boy's hearing through the shock of a ride in an airplane. Josepha Briotta sent his son Luke, deaf and dumb since birth, aloft with Charles Potholm, 28, a pilot of three years. They were accompanied by Abraham Mazer, 21. Potholm tried stunt flying. They were killed when the plane crashed to earth from an altitude of 2,000 feet.

THE story is a United Press clipping from the Chicago *Tribune* of September 9; it is dated from Springfield, Mass. However, Massachusetts has no monopoly on this particular notion, although mental healing miracles have emanated to a large extent from that vicinity. It was in Portland, Me., that Dr. Quimby cured Mary Morse Baker Glover Patterson Eddy of the hysterical paralysis that had afflicted her for some years, so that she climbed the steps to the top of the town hall as proof of the cure. It was at Concord, N. H., that she was born. It was from that vicinity that New Thought and a half dozen other of the mind healing sects of America have emanated.

During the World War a story was current relative to two British soldiers spending a night in the trenches. The sky was agleam with the explosions of bombs, shells, rockets, lights and all the other paraphernalia of war. The rumble of the cannons and the tapping of the machine guns were incessant. Buildings toppled and vast masses of earth were flung hither and thither. In the midst of this turmoil one soldier turned to the other and said: "Scare me, Alf; I've got the hiccups."

Certain forms of deafness, sometimes congenital, result from disease that causes degeneration and death of the tissues or from structural defects in nerve tissue. Dead tissue does not recover. In other forms of deafness the organs involved in hearing are modified by disease. When the disease is checked in time the tissues tend to recover. There is a form of deafness in which the person does not hear because he is firmly convinced that he cannot hear. The disease is not in the organs of hearing but is a mental disturbance. After the World War there were soldiers unable to see or hear following shell-shock. The terrific action at the front affected the mental attitude. When the war ended and peace made impossible any further fears, some of the hysterics recovered spontaneously; some of the cases of shell-shock improved tremendously. There is an aphorism among doctors and lawyers in industry that patients make surprisingly quick recoveries after the financial settlement.

An Australian soldier could not see after he was sent back from the trenches. When the war was over he knocked around a bit and recovered suddenly following an osteopathic manipulation. Then he did well giving lectures in support of osteopathy. When a large blimp fell in Ohio a chiropractor early on the scene got hold of one man who had lost control of some of his functions. A few adjustments made him a fit subject for chiropractic propaganda. In the old days doctors used to cure young ladies who refused to eat by sousing them suddenly with buckets of ice water. In the days of chlorosis and adolescent hysteria such miracles were quite common. Today, at celebrated shrines all over the world patients who have convinced themselves that they are unable to carry on certain normal activities suddenly recover as a result of powerful spiritual suggestion when good ordinary common sense and scientific reasoning are without effect. Even an Aimee McPherson can sometimes get a result by laying on hands.

A few years ago, after the first case of hysterical deafness was cured by falling in an airplane, HYGEIA called attention to the real nature of

such cures and the newspapers were helpful in broadcasting the information. For a time little children continued to be the victims of well-intentioned foolishness on the part of their parents. Some fell so completely that they were relieved not only of deafness but of all mortal afflictions. Then an interval passed without further reports.

Now the silly season has once again come upon us and in the past few weeks the newspapers have helped to make it worse. One report told how a gentleman somewhere in the East had restored the hearing of a valuable Boston terrier by an airplane flight. But several deaths of children indicate that the method was fatal if not futile in their cases. The newspapers record only the successes, not the failures, and not the reasons for the successes or failures.

The human being should be, but is not, a reasoning animal. He craves his miracles and he loves the mysterious. He would rather be cured by an airplane flight than by a syringe full of warm water. We rather doubt that this editorial will greatly influence the mind of the kind of parent who sends his 7 year old up in an airplane to cure him of deafness.

LESS TEA BUT AS MUCH CAFFEINE

A REPORT from the U. S. Department of Agriculture indicates that, despite the continued growth in our population, nearly six and a half million pounds less tea was imported into the United States during the year ended June 30, 1928, than during the previous year. The decrease is 7 per cent.

For several years there has been much agitation against the use of tea and coffee, particularly by invalids, because of the amount of caffeine contained in these beverages. The caffeine approximates from ¾ to 1½ grains per cup of the complete beverage, an amount nearly that of an ordinary dose of the drug caffeine used for stimulating purposes. Because of the reaction against tea and coffee, various decaffeinated beverages have become available and there are many coffee substitutes—drinks concocted to resemble coffee in taste, flavor and other qualities but without the aromatic oils or the caffeine contained in coffee. Tea drinkers are likely to take more of their favorite beverage than are coffee drinkers, and there are still many homes housing families of English descent in which the teapot is constantly in service. There are, moreover, families of Scandinavian ancestry in which the coffee pot is kept constantly boiling.

One wonders perhaps whether or not the advertising campaign for decaffeinated coffees and coffee substitutes has not been largely responsible for the decrease in the use of tea. If it has, the persons who have given up their beverages have not accomplished in many instances the result that was sought. The governmental report indicates that drinks other than tea and coffee containing added caffeine are now being used extensively with meals at lunch counters, cafeterias, soda fountains, cigar stores and similar places of noon-day refreshment. The sale of these caffeinated soft drinks is promoted by extensive advertising. There is nothing in the law that makes it necessary to declare either in the advertising or on the labels that such drinks contain caffeine. If it is harmful for a child to drink coffee or tea containing caffeine, it is just as harmful for the child to drink coca-cola or any of the soft drinks of which caffeine is an important constituent.

Several million pounds of tea waste, tea siftings and tea sweepings were imported under government regulation during the past year for manufacturing purposes. Practically all this waste material was converted into caffeine and most of the caffeine passed into the soda fountain drinks that have been mentioned. Food habits of the nation are notoriously tricky. They depend just as much, if not more, on advertising, on promotion, on flavor and on public fancy, as on actual knowledge of the composition of foods or their usefulness in the human diet. Apparently the American has again been led insidiously into a doubtful dietary habit.

SO-CALLED DENICOTINIZED TOBACCO

IT WAS inevitable, following the advent of alleged dealcoholized beer and decaffeinated coffee, that, sooner or later, we should have—also alleged—denicotinized tobacco. In the public's credo nicotine is the only harmful element in tobacco. The facts are that there are other elements in smoking that may be indicted. There are ammonia gas, pyridine derivatives and carbon monoxide, the latter substance the deadly gas that is responsible for occasional deaths among those who run their motor cars in closed garages. It has been pretty well established, scientifically, that the drier the smoking tobacco is—whether used in the form of cigars, cigarets or pipe—the greater is the destruction of nicotine. At least one serious investigator, Dr. W. E. Dixon of the Pharmacological Laboratory of Cambridge, is of the opinion that the water content or moisture in

tobacco may be a more harmful factor to the smoker than the original nicotine in the tobacco.

In any case, it is well to bear in mind that nicotine is not the only element to be considered when discussing smoking from the health angle. With the commercial advent of alleged denicotinized cigars, cigarets and pipe tobacco, public interest in the subject of supposedly nicotineless smoking products was immediately roused. Those who care to obtain authoritative information on the subject may derive a good deal of satisfaction from Bulletin 295, recently issued by the Connecticut Agricultural Experiment Station, New Haven, Conn. This bulletin is the station's annual report on food and drug products. In addition, it contains a special article on so-called denicotinized tobacco, the article being the result of work done by Dr. E. M. Bailey, the chemist in charge of the Analytical Laboratory of the station, in collaboration with Messrs. O. L. Nolan and W. T. Mathis, assistant chemists.

These chemists in their article point out what is fairly obvious—that, to the general public, the term "denicotinized," or "denicotined," means to the average mind "practically free from nicotine." If that is the interpretation given by the man in the street to the term "denicotinized" or "denicotined," then the products sold under these claims are essentially misbranded, for the Connecticut investigators found that the alleged denicotinized products contain but little less nicotine than do ordinary tobaccos of corresponding leaf-types. They found and reported that it was not difficult to find, among ordinary tobaccos, brands in which nicotine is not greatly in excess of that present in the processed or so-called denicotinized products.

Messrs. Bailey, Nolan and Mathis state that, while the tobacco consumer is not much concerned with technicalities, he is interested in knowing how the advertised processed tobaccos ("denicotinized" or "denicotined") compared in nicotine percentage with ordinary tobacco. In order to have some figures that would mean something to the tobacco-consuming public, the New Haven chemists analyzed a number of ordinary tobacco products, selecting in their work some of the more popular and widely advertised brands of cigarets, cigars and pipe tobaccos. Then, having done that, they also analyzed the most widely advertised processed —alleged denicotinized—tobacco products.

The results of their analyses make interesting reading. They found that ordinary tobacco products showed a nicotine percentage varying from a high point, 2.89, to a low point, 1.06, and giving an average nicotine percentage of 1.77. Their analyses of the so-called denicotinized tobaccos showed that these had a nicotine percentage that varied from a high point of 2.51 to a low point of 0.97, with an average of 1.28. It is evident from these figures that the so-called denicotinized brands examined by the Connecticut men contained on an average more than 70 per cent of the amount of nicotine found in ordinary tobacco. To call such products "denicotinized" is to play tricks with the English language.

THE HEALTH OF EXECUTIVES

THE Dennison Manufacturing Company nine years ago decided to institute health supervision for its executives. The key men of any industry are responsible for its success or failure. An executive suffering with any chronic complaint, irritated by the nagging of an ulcer, under par because of a bad throat or bad teeth, disturbed by headaches due to bad vision or obstruction in the nose is likely to be as much a liability to his concern as an asset.

The executives to be examined are selected by the directors of the corporation. Examinations are given twice each year and appointments are made by the physician who calls each executive by telephone and arranges the matter with him. The examination records are kept for reference, so that the health record and any information concerning deterioration are always available.

Among eighty minor executives, twenty-eight major defects were found in the first examination, including disturbances of the heart, varicose veins, skin diseases, hemorrhoids and rupture. Such minor defects as overweight and underweight, bad vision, defective hearing, bad teeth, infected tonsils, disturbances of the blood pressure and foot defects were found in even greater numbers. Moreover, records of the health habits of the men indicated many opportunities for correction.

In connection with the health examination plans have been made for health preservation and disease prevention. These plans include inoculation against communicable diseases, three weeks' vacation annually with salary, half holidays during the summer in addition to the Saturday half holiday, and special vacations for men who require them.

It has been found that the executives like the health examination, cooperate fully, follow the advice and willingly correct minor and major physical defects that are called to their attention.

THE LAND-A-LEAVES

By

Beatrice T. Mantel

ABOUT the attic eaves the wind was blowing—a long, low whistle and a whirr, a long, low whistle and a whirr. Mariella could hear the wind. She sat with her elbow resting on the sill of the attic window and her chin cupped in her hands. The window was tightly shut before her. It was as if she thought a slight breeze would blow her away. Perhaps it would; she was small and frail. She was seldom out in the sweet fresh air.

The elm tree and the maple met at the window before her. Mariella could see nothing but leaves; elm leaves, maple leaves, elm leaves, maple leaves, with bits of blue from the sky trying to peep between. The sun made golden patches on the leaves. Sunbeams danced on the glinting, golden sun patches.

The wind whistled, whirred, snatched startled leaves and sailed them away. A bright little dancing sunbeam tilting, tilting, pirouetting, sailed away after the leaves.

But where had the leaves gone? They had blown away. Where do the leaves go when the wind blows them away—lovely, golden leaves, patched and ragged leaves—where do they go when the wind blows? Mariella wondered.

Mariella was growing drowsy. Why, the window pane was rippling, like rippling water! The ripples grew larger and larger, and Mariella was standing before a gate, a scrolly, scrambly gate that looked like a tangled brier patch.

There were voices. What were they saying? They sounded like the whistling and the whirring of the wind. Mariella's ears seemed to be larger. She touched them. They were larger!

"Oh," she thought, "this is how poor Alice must have felt when her neck got longer, and how Daffy-Down-Dilly felt when she pushed her head up through the ground, hurrying to grow."

The talking grew clearer: "Thelandaleavesthelandaleavesthelandaleavesthelandaleaveswhoapproachesthelandaleavesthelandaleaves?"

And still clearer.

"Thelandaleavesthelandaleaves, who approaches the land-a-leaves? This is the land-a-leaves. No one enters here who has not been whisked here in three swishes from the big maple and elm. Round cheeks, rosy cheeks, welcome. No one enters here who has not been whisked here in three swishes from the big maple and elm. Round cheeks, rosy cheeks, welcome."

"Oh dear," sighed Mariella, "I wonder if I have been whisked here in three swishes from the big maple and elm? How I wish my cheeks were round and rosy! I wonder what I could do to make them round and rosy!"

Mariella sat with her elbows resting on the sill of the attic window and her chin cupped in her hands.

The scrambly gate that looked like a tangled brier patch looked strange and Mariella did want to see what was on the other side.

Suddenly the gate parted and there stood the prancing, dancing sunbeam that had sailed away after the leaves. But now it wasn't a sunbeam; it was Pan o' the Pipes, the little summer fairy. He smiled at Mariella, and at once she knew all about him.

She knew that during the warm, hazy months he romps among his beloved leaves on earth. But when the wind whistles and whirs around the eaves, when the

leaves have fallen and have all been blown away, Pan o' the Pipes is no longer on earth. He has flown with them, blown with them, into the land-a-leaves.

And there was Pan, flitting, tripping before her. The air was sweet and shiny about them. Mariella took a deep breath and suddenly felt strong and gay. She even ventured a tiny pirouette, skipped through the scrolly, scrambly gate that looked like a tangled brier patch and danced after the fairy.

There was a fumbling, a twirling, a frisking, a swishing, as if the wind were blowing a heap of leaves before it. Suddenly Pan and Mariella were in the midst of a crowd, a golden, green and brown crowd. Why, she knew who they were! They were her friends outside the attic window, the leaves. She was in the land-a-leaves!

Pan reached for Mariella's hand, and she flew about with him, her hair whirling about her. They smiled and waved to a young and pretty poplar. The pretentious chestnut leaf flaunted gracefully about in her lovely silks and laces. Mariella stopped to hug and cuddle a wee walnut leaf.

The prankish Pan alighted on the shoulder of a cumbersome maple leaf. A moment later he was talking fairy talk to the tall, stately, aristocratic elm, whose voice seemed to drift away and then come back again to mingle with the tinkle, twinkle, chinkle of the fairy's laughter.

Pan danced so lightly and jauntily before them that the baby leaves crowed and laughed.

Pan o' the Pipes smiled at Mariella and at once she knew all about him.

The fir needle, tall, lean and silent person, stalked about in stately fashion. On his arm hung the disheveled willow, silently weeping as she trailed a little behind her beloved mate. Pan, the sprite, reached for his pipe and blew a tiny, trilly tune. He danced so lightly and jauntily before them that the baby leaves crowed and laughed. The fir needle forgot his stateliness for a moment, bent a little nearer the willow and whispered a love note into her ear. The willow wiped away her tears with the edge of her flowing green sleeve, lifted her head and smiled. Pan, the magician, brews smiles.

All the leaves were smiling, and so was Pan!

Mariella felt their smiles rippling about her. The smiles—were—turning—into—rippling—water—the—rippling—water—into—the—rippling—pane—of—glass. The little fairy was drifting away.

"Oh, Pan, don't leave me," cried Mariella sadly.

The fairy smiled serenely, "I'll always be with the leaves. Round cheeks, rosy cheeks—find them in the sweet, shiny air. Round cheeks, rosy cheeks, are welcome everywhere!"

And he was gone.

The scrolly, scrambly gate that looked like a tangled brier patch was behind her. Her ears were small again! There before her were the leaves, the leaves of the maple and elm outside the attic window, the friendly, waving leaves with bits of blue sky peeping between them.

"Oh," she said aloud, "I must hurry out to them; fondle them, run with them!"

There in that sweet, sunshiny, fresh air Mariella became strong and gay. There with the friendly leaves she found her round and rosy cheeks.

Health Secrets from Japan

September 12, 1928

Dear Nelly and Dick:

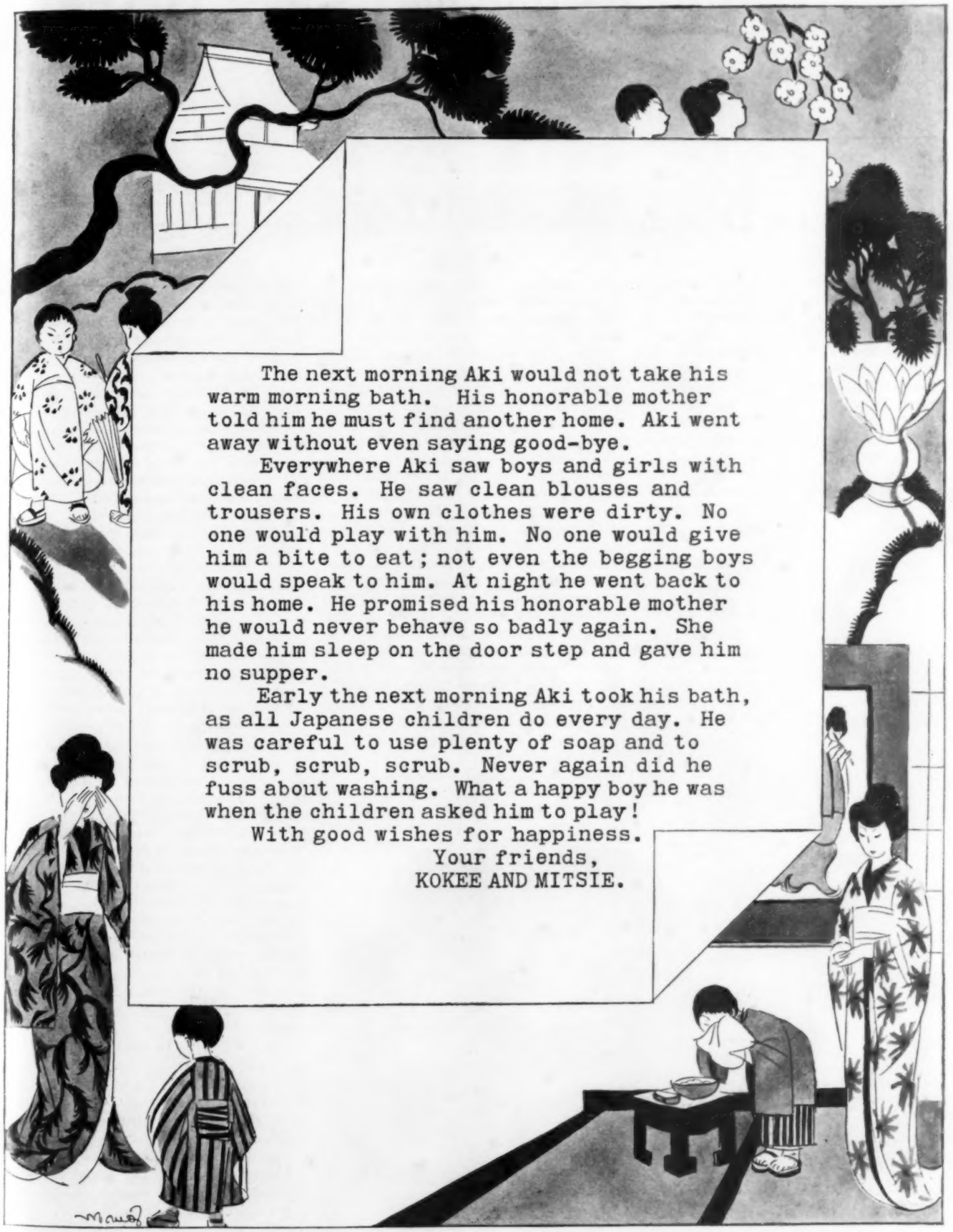
Your last letter was so strange! Why, Mitsie and I never cry! All Japanese children are gay. There are people everywhere just to make us happy. There is Kiaki, the fairy story lady. There is Oto San with a hurdy gurdy, and there is Mici with his funny trained monkeys.

Your letter almost made us sad and unhappy for we feel sorry for you. Tell us how the paper got those black marks on it, and why you hate to wash your face. I think we had better tell you about Aki, a bad little boy in one of our story books.

Aki had a very nice house. His honorable mother was proud of it. Every day she dusted the walls and screens. But Aki grew tired of slipping off his shoes when he came home and one day he forgot his white stockings. He walked across the floor wearing his sandals.

Another Foreign Letter

By Katharine Ranger



The next morning Aki would not take his warm morning bath. His honorable mother told him he must find another home. Aki went away without even saying good-bye.

Everywhere Aki saw boys and girls with clean faces. He saw clean blouses and trousers. His own clothes were dirty. No one would play with him. No one would give him a bite to eat; not even the begging boys would speak to him. At night he went back to his home. He promised his honorable mother he would never behave so badly again. She made him sleep on the door step and gave him no supper.

Early the next morning Aki took his bath, as all Japanese children do every day. He was careful to use plenty of soap and to scrub, scrub, scrub. Never again did he fuss about washing. What a happy boy he was when the children asked him to play!

With good wishes for happiness.

Your friends,
KOKEE AND MITSIE.

Health and the School

Edited by J. Mace Andress, Ph.D.

Health Departments *as* Health Education Agencies

THE movement of health education in America has enlisted the efforts of health departments to a remarkable extent. As originally organized health departments were intended primarily to combat communicable disease. Their contributions to public health have been among the most remarkable achievements of the last fifty years. The purification of water supplies and the pasteurization of milk alone were followed by marked decrease in the mortality from typhoid fever and other diseases identified with water and milk.

The leaders in the public health departments, like sleuth hounds, undertook to follow each disease to its lair, to find its cause and prevent a reappearance. Persons with contagious disease were promptly isolated. As the science of preventive medicine progressed they undertook to immunize citizens against maladies like diphtheria and smallpox. The supervision of matters pertaining to pure foods and public safety were most successful.

The time came, however, when public health departments with commendable zeal sighed for other fields to conquer. Some of them began to see that their labors in purifying the water supply were about over. They could hardly expect within the next few decades to duplicate their remarkable successes of the last half century in lowering the death rate. Yet many causes of ill health remained. It was obvious that to make the people healthy they needed to have the cooperation of the individuals that made up the public. Even if the water was pure and the milk safe it was desirable to get people to drink more water and use more milk. Health departments began to realize that the next great advance in the public health depended on health education. This became clear after the war when the new movement of health education began to sweep over the country.

Once having seen the light, many of these departments embarked upon their work with enthusiasm. They began to use the newspapers to tell stories of how to be healthy; physicians were employed to give free lectures to the public; moving pictures on health were utilized effectively; correspondence courses for expectant mothers were organized, well-baby clinics were established, exhibits were prepared for fairs and public meetings and a keen interest was taken in teaching health to both children and adults.

This health education campaign has naturally varied in different cities and states depending on the intellectual level of the population and the leadership and vision in the health departments.

One method of reaching the general public has been through printed matter. Nearly every health department publishes a weekly or monthly health bulletin. Many of these are sprightly sheets, well illustrated with cartoons, drawings, diagrams and photographs. They are printed on good paper in clear, readable type. They contain timely and practical health advice, local health news, historical and scientific health material, suggestions for school work in health with frequent light touches in the form of jokes, snappy paragraphs, epigrams and humorous drawings with a health angle.

Less effective in carrying a health message are others that are printed on poor paper with unattractive headings. Often they carry tables and statistics of interest only to physicians and persons technically trained in health work. They contain information on local health problems and needs, however, which school administrators and

Children enjoy projects in health education.

teachers may adapt for presentation to their students.

Any teacher may secure the health bulletins free. In them she will find many an article which she can use in her own teaching. They will also keep her enlightened concerning the health problems in her own state.

As a teacher it will pay you to write today to your local and state departments of health and ask to be put on their mailing lists.

TEACHING HEALTH

(In this column will be published each month concrete examples of good health teaching. Teachers are invited to send in contributions not exceeding 600 words and preferably less to the editor of this department. Illustrations of the actual work of children will be welcomed. Contributions accepted will be paid for but no manuscripts will be returned.)

"CARELESSNESS IN COURT"

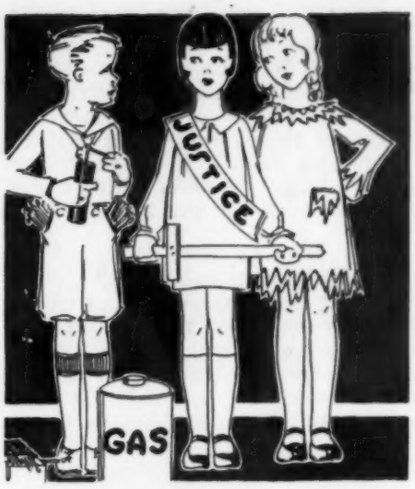
RECENTLY a pupil who was in my school five years ago told me that the thing he remembered most vividly about the work of that year was a play in which he appeared. Dramatization, being closely related to play, impresses itself clearly upon a person's mind. A lesson taught through dramatics seems more real to a child.

Sometimes teachers say that putting on a play is too much work. They think that costumes are a bother and rehearsing parts a waste of time. In some cases this is so, but the thing can be quickly and easily accomplished. One of my classes put on a dramatization for another class in three days and no time outside the English period was used except the time before school when we made our costumes. The children themselves wrote the play after the main idea was outlined.

Several complaints against Fire were brought to the court of Justice. At once Justice called Fire to give an account of herself. Fire proved that it was not she who was to blame, but Carelessness. Carelessness was called. He admitted that he caused the trouble and would continue to do so as long as he was harbored by people. Justice decided in favor of Carefulness.

During the first written English lesson the children wrote out various complaints against fire. One said that fire burned her baby; another said that a match had set fire to his house; a third complained that his eyebrows were burned off when he held a match over a tank of gasoline and another had burned his hands badly when he held them over the stove after washing them in gasoline.

Eight stories were chosen and assigned to their writers. An intelligent girl with considerable dramatic talent was chosen to be Fire. Another had the rôle of Justice. Much of the conversation was impromptu at first, but after having talked over the idea of the play, the characters and the stage setting, and going through the action several times, adding ideas and "business" each time, the children quickly worked it into shape. There was much repetition in what both Fire and Justice had to say, which made it easy to remember. So many children had parts that no one except Fire had a long speaking part to learn.



Carelessness admitted that he caused the trouble.

The advantages of a play of this kind are manifold. Making up parts and planning the whole performance develops originality on the child's part. Both written English and oral English play important parts. Letters of invitation can be written to another room and as letter writing has an important place in the course of study for Grade IV all chances for actual experience in writing letters that arise should be utilized. Putting on a play is a social activity and in taking a part in one, a child learns to adjust himself to working with others. Last of all, creative dramatization supplies for the children a chance to express themselves.

REBECCA RICE,
Worcester, Mass.

NEW HEALTH BOOKS AND TEACHERS' MATERIALS

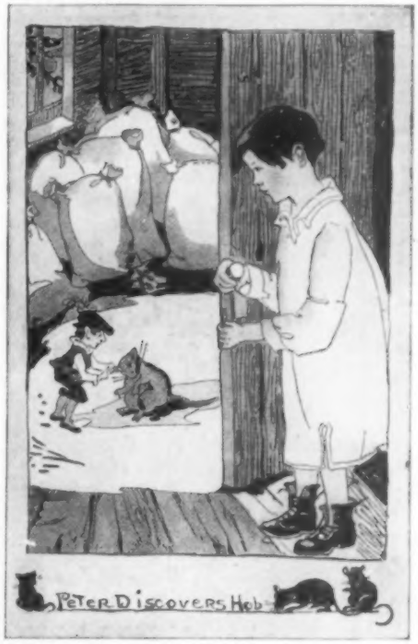
AN interesting and practical book for health teaching is "Chemistry and the Home."[1] The reason for being so bold as to attempt to write this type of book in chemistry is given by the authors in the following quotations:

"Most of the textbooks have been written as if the object were to exclude every trace of human interest and to make the subject as dry, pedantic and difficult as possible.

"In our day our comfort and pleasure are constantly being served by a new kind of explorer—the chemist—the modern Marco Polo. Instead of voyaging to the ends of the earth, he remains closeted in his laboratory, but allows his mind to roam through unseen worlds of atoms and molecules, and by transformations of matter, mysterious to the layman, evolves new substances possessed of almost any desired combination of physical properties. The effect on our civilization is only beginning to be felt."

Then the authors introduce the reader to the magic of the chemist's work. Chemistry is everywhere in all the processes going on around us. Many of the chapters such as "Chemistry in Food and Nutrition," "Cleanliness" and "Drugs and Medicines" are directly related to health. Such a book if used as a supplementary book in high school classes in chemistry would tend to liven up what is often a dead subject. It may be used to supplement courses in science, physiology and health in high schools. This book could be read by every health teacher with profit.

A delightful story, "Hob o' the Mill,"[2] is issued by the Quaker Oats Company with the idea of making cereals popular. Although it is a clever bit of advertising, it is also sound as to content and interesting to children. Good paper, print and illustrations make it attractive as a supplementary reader. Write for a free copy for your library.



Frontispiece from "Hob o' the Mill."

1. By Harrison E. Howe and Francis M. Turner. Pp. 355. Charles Scribner's Sons, New York, 1927.

2. By Grace T. Hallock and Julia Wade Abbot. Pp. 110. The Quaker Oats Company, Chicago.

An outstanding health book for the year is "Health Supervision and Medical Inspection of Schools."[3] The carrying out of a health program involves the cooperation of practically every person who comes intimately in contact with children. The problem of supervision is to get school doctors, nurses, teachers, parents and others to contribute their influence in such a way as to make and keep the child healthy. This book is concerned largely with the problem of medical inspection. The topics considered principally relate to (1) the promotion and protection of the health of school children, teachers and all employees of a school system; (2) the detection and correction of health defects of pupils, and (3) the minimizing as far as possible of the limitations of handicapped children and assuring such pupils the best possible social and economic status for the future.

When medical inspection first came into existence it was for the purpose of preventing the spread of contagious disease. It succeeded in performing a great service, but now health educators are calling on both school physicians and nurses for a broader kind of service. The authors define health supervision as "the program of health service in which school, home and community unite their efforts to insure to every child in school that fulness of health and healthful conditions which are favorable to the best growth, development, and education of which the child is capable."

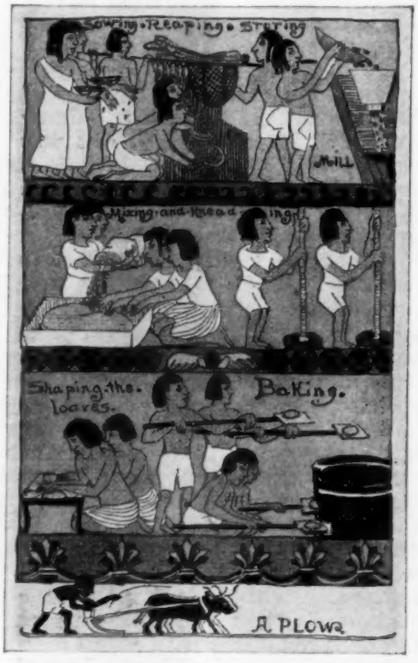
The authors have used good judgment in selecting reports and publications bearing on their subject from all over the country. This book should be accessible to every school physician and nurse so that they may know of the latest developments in their field and measure their work accordingly. The teacher should be familar with it also so that she may know how best to cooperate with doctor and nurse.

An excellent book for those who wish to get an insight into the methods of a clinical psychologist is "Clinical and Abnormal Psychology."[4] It deals almost entirely with psychologic examination methods.

And now comes one of the famous Harvard health talks[5] given by an expert in the field of mental health of the little child. To the parent or the teacher who is unfamiliar with the subject this book will prove to be a simple, direct discussion of some of the most vital problems of mental health. The advanced student will find in it an excellent summary of the mental health of the preschool child. Even within the pages of this tiny volume Doctor Thom has been able to introduce some interesting cases, which make the book readable and helpful.

"Playgrounds of the Nation,"[6] a series of projects on outdoor recreation and the conservation of forest life, has developed through a study of state parks and forests. It is attractively illustrated and offers some excellent material on the teaching of civics and health.

Although a special period and a special textbook may seem desirable for health, information on hygiene should be presented through various subjects. Miss Lois Meier has investigated the health material found in general science, biology, chemistry, and physics textbooks. In a little book called "Health Material in Science Textbooks,"[7] she finds that in biology and general science there is a definite tendency to organize subject matter around health, but in chemistry and physics the author seems less concerned about the introduction of health material. Fifty per cent of the biology, 32 per cent of the general science, 11 per cent of the chemistry and 2 per cent of the physics consists of health material.



Bread-making in Egypt, from "Hob o' the Mill."

A valuable report[8] that should be studied by every high school teacher and administrator tells the story of a student personnel department in the La Salle Township High School and the La Salle-Peru-Oglesby Junior College. It exemplifies a mental hygiene approach with attention to individual students and emphasis on superior students. The procedure involves three methods of attack, first, psychologic intelligence tests; second, social contact interview, and third, a group attack through mental health lectures.

A committee of fifty on college hygiene concludes in a scholarly report[9] that the great majority of the institutions of higher learning in the United States are not offering the opportunity for a general education in hygiene which would prepare their students for citizenship.

A helpful book for every teacher and school administrator is "The Tired Child."[10] Several good books have been written on problem children but this is the first one on the tired child. The authors do not have in mind acute fatigue and the result of temporary overstrain but chronic fatigue. If you are a teacher look over your room to find out whether there are any children that seem to be tired all the time. If you are a school principal have a survey made for your building. What are the causes of chronic fatigue? What effect does it have on school work? How is it related to mental and physical health? How may it be corrected? To get a good answer to these questions read this book. Why would it not be a good plan to discuss the tired child at your next teachers' meeting?

"Stories of Men and Nature"[11] is a novel adventure in reading books. It contains much new and snappy material. At the end of each chapter there are interesting exercises to assist in silent reading. Puzzles, riddles, true and false statements, and other suggestions of things to do make this an attractive and interesting book for children. There are several excellent chapters on health entitled "The Skin and How to Care for It," "Our Eyes and How to Care for Them" and "The Hair and Its Care."

3. By Thomas D. Wood and Hugh Grant Rowell. Pp. 635. W. B. Saunders Company, Philadelphia, 1927.

4. A TEXTBOOK FOR EDUCATORS, PSYCHOLOGISTS AND MENTAL HYGIENE WORKERS. By J. E. Wallace Wallin. Pp. 694. Houghton Mifflin Company, Boston, 1927.

5. THE MENTAL HEALTH OF THE CHILD. By Douglas A. Thom, M.D. Pp. 46. University Press, Cambridge, Mass., 1928.

6. By Florence C. Fox. Pp. 99. Bulletin No. 20, Bureau of Education, Department of Interior, Washington, D. C.

7. By Lois Meier. Pp. 104. Bureau of Publications, Teachers College, Columbia University, New York, 1927.

8. THE BUREAU OF EDUCATIONAL COUNSEL. Pp. 52. La Salle, Ill., 1927.

9. THE STATUS OF HYGIENE PROGRAMS IN INSTITUTIONS OF HIGHER EDUCATION IN THE UNITED STATES. By Thomas A. Storey, M.D., Ph.D. Pp. 125. Stanford University Press, Stanford University, Calif., 1927.

10. By Max Seham and Grete Seham. Pp. 331. J. B. Lippincott Company, Philadelphia, 1927.

11. By Ethel M. Hale. Pp. 198. Fourth Book. J. B. Lippincott Company, Philadelphia, 1927.

New Books *on* Health

Reviews of Interest to General Reader, Parent and Teacher

COMING OF AGE IN SAMOA

By Margaret Mead. Pp. 297. Price, $3. William Morrow & Company, New York, 1928.

THE fact has been definitely established in anthropology that the life of the individual repeats the life of the race. It is therefore of the greatest importance for the intelligent man or woman to understand how savages conduct their lives and how primitive peoples have solved the problems of community welfare that trouble all of us.

Miss Margaret Mead of the American Museum of Natural History prepared this book as a fellow of the National Research Council. She was aided in Samoa by the medical authorities of the United States Navy, and she seems to have gained the confidence and cooperation of the people with whom she worked. As a student of the celebrated Franz Boas, professor of anthropology of Columbia University, she was well equipped for the study which she undertook. In his introduction to the book, Professor Boas concludes with the following significant statement: "The results of her painstaking investigation confirm the suspicion long held by anthropologists that much of what we ascribe to human nature is no more than a reaction to the restraints put upon us by our civilization."

Miss Mead studied at first hand the girls of Samoa. In this book she describes their lives, their relationships to their brothers, sisters and elders. This presentation naturally involves a complete study of the whole social life of Samoa. The book is not written, however, as one of those dry as dust expositions and commentaries. It presents human beings busy at work and at play.

During the birth of a child in Samoa all the neighbors are invited in. The common obstetrical superstitions that prevail in other savage communities occur also here. Babies are always nursed, and if mother's milk fails, a wet nurse is sought. From the first week babies are given other food, including coconut milk and sugar cane juice, as well as some solid materials, which the mother chews up and then feeds to the baby on her finger. Babies are nursed whenever they cry. Unless a woman expects another child, the baby is nursed until he is at least 3 years old. The infants are bathed frequently with the juice of a wild orange and rubbed with coconut oil until their skins glisten. The chief nursemaid is usually a child of 6 or 7 years, acting also as educator for the baby. As the girls and boys become older, they are taught useful domestic and businesslike tasks, such as fishing, weaving and other duties associated with the daily life. Households are organized with a head man, and families are kept well together.

A Samoan chief's daughter, from the book by Margaret Mead.

Miss Mead illustrates the family problems by innumerable anecdotes and instances of her own observation. The community ignores both boys and girls from birth until they are 15 or 16 years of age. Then they are organized. The features of love relationships take on definite schemes, which are artistically described by the author. Mental conflicts and educational problems are fully elucidated. The book is unique among anthropologic works in that it is not only scientific and accurate but is presented in such a form as to make reading extraordinarily attractive.

MORRIS FISHBEIN, M.D.

FUNDAMENTAL GYMNASTICS

THE BASIS OF RATIONAL PHYSICAL DEVELOPMENT. By Niels Bukh. Translated from the second Danish edition by Emily Russell Andrews and Karen Vesterdal. Pp. 202, with many new illustrations. E. P. Dutton and Company, New York, 1928.

ALTHOUGH the tendency of athletic training in schools seems to be getting away from gymnastics and more and more into sports and competitive games, systematic exercises of muscles based on anatomic study are scientific and important. Gymnastics should be considered a tool in body development planned to equalize growth and to improve coordination. The book by Mr. Bukh illustrates and describes all the important gymnastic movements and the use of apparatus. An appendix tabulates lessons for men and women and provides systems for testing and scoring.

JUNIOR HOME PROBLEMS

By Kate W. Kinyon and L. Thomas Hopkins. Pp. 214, with illustrations. Price, $1. Benj. H. Sanborn & Co., New York, 1928.

THIS volume is prepared by the authors as a textbook in home training for high school girls. It seems if anything a little elementary. It is, however, quite sound in its attitude toward character building. Its questions and literary references are exceedingly well chosen. The health habits outlined are in accord with the best general advice. Certainly the book should be a useful aid to any teacher concerned with this subject. The weakest part of the work is the amateurish illustrations.

MORRIS FISHBEIN, M.D.

News *and* Views

From the

FIELD OF HEALTH

TEACHING HYGIENE IN HUNGARY

Relapse in standards of living after the World War and two internal revolutions has seriously handicapped the promotion of public hygiene in Hungary, Dr. Dennis Janossy of the Hungarian ministry of health education reported at a conference of the health education section of the World Federation of Education Associations.

Teachers in the public schools are charged with the greatest responsibility in carrying the program. Through their practical teaching of hygiene they not only inspire children to acquire health habits, but they influence the whole population, especially in the rural districts, to improve the standards of living. Poverty does not help to keep up public hygiene, Dr. Janossy observes.

All Hungarian schools have physicians, who examine the children twice a year. In many cases, when the school physicians find ill health of children is caused by insanitary environment at home, they are able to persuade the family to change its living habits.

HOW ARMY CONQUERED TYPHOID FEVER

A great chapter in medical history was written during the World War in the conquest of typhoid fever among American troops. During the Spanish-American War thirty years ago 20,926 cases of typhoid fever occurred in an army numbering 148,000. In an army of 1,500,000 in the World War 1,529 cases occurred, the most recent volume of the medical history of the World War shows.

American soldiers were constantly exposed to typhoid on the Western front. Thousands of cases occurred among the British and French in the sectors in which the American troops operated. The water supplies were as a rule not above suspicion. Had the preventive measures not been effective the disease would probably have prevailed extensively among the American forces, observes an editorial in *The Journal* of the American Medical Association. This conquest is one of the greatest of modern times.

CHILE LEGISLATES FOR CHILD WELFARE

Chile has recently passed a law making school attendance compulsory for children between the ages of 7 and 15. Further improvement provides for playgrounds, gymnasiums, baths, libraries, school gardens and workshops in all schools as rapidly as it is possible to equip them. Traveling schools are planned for rural districts that do not have permanent schools.

The law also provides for the establishment of institutional schools of the cottage type for dependent and handicapped children, according to the bulletin of the Children's Bureau of the U. S. Department of Labor.

MEXICANS LEARN HEALTHFUL DIET

Frijoles and chilli are about to be replaced by fruit, vegetables and milk in the diet of the Mexican children of Dolores mission, St. Joseph, Mo., through the efforts of the Buchanan County Chapter of the Red Cross.

Nutrition conferences are held on Sunday at the church after the religious services. Sister Dolores of the parochial school translates into Spanish the talks of the Red Cross nutritionist and interprets the questions asked by the parents.

Thirty-five children were examined at the first meeting. Most of them were undernourished and many showed evidence of rickets. Their diet was found to be largely of Mexican dishes of which lard and peppers are conspicuous ingredients. They also drank much tea and coffee and practically no milk. The food has undergone considerable change since the parents' interest has been aroused, the *Red Cross Courier* reports. The attendance at the conferences is now 200 mothers, fathers and children practically every Sunday.

DRUIDS PRESCRIBED IN MODERN MANNER

The Druids of old, like all primitive spiritual advisers, were probably physicians as well. Sir Ewen MacLean, in his recent address as president of the British Medical Association, said that the ancient Druids undoubtedly possessed considerable knowledge of healing plants and other drugs as well. The chief medicines they recommended, however, were not drugs, but four rules of conduct that are still advocated as preventives of ill health; cheerfulness, temperance, exercise and early rising.

NATIONAL SAFETY BODY TO HOLD HEALTH SESSION

Health problems are to be discussed at a special session of the National Safety Congress, which is to hold its seventeenth annual meeting in New York City, October 1 to 5. The program will deal largely with health in industry, two subjects for addresses being "The Economic Value of Life and Health in Industry" and "The Organization of a Plant Medical Department." The National Safety Council has recently created a health service division, with a physician of experience in public health as the director.

FEED COD LIVER OIL TO DYING LION CUB

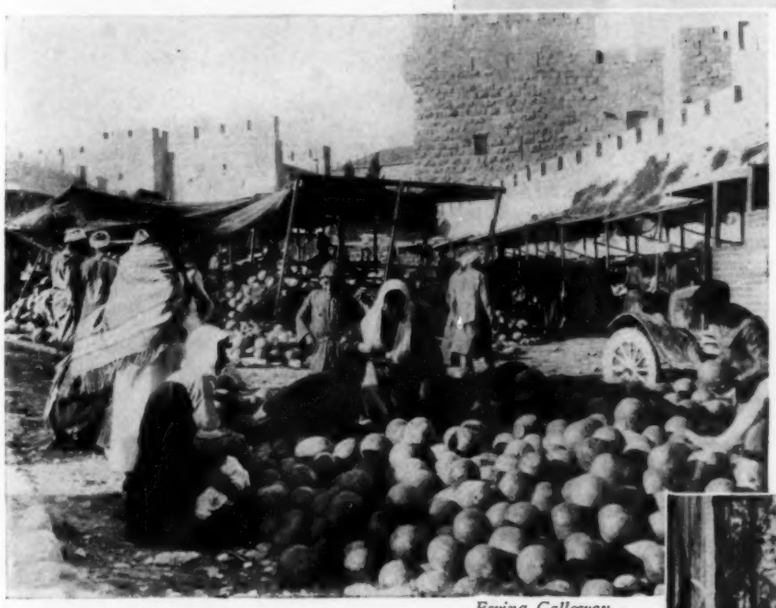
Cod liver oil, sunshine and milk saved the life of a lion cub that was dying of undernutrition in a zoo at Madison, Wis., according to the Wisconsin *State Journal.* When the cub was two weeks old, the caretakers at the zoo noticed that he was losing weight and that he seemed to be weak. In a day or two the little beast was found lying motionless on the floor.

Separating a lioness from her cub was not a sinecure, but the keeper of the zoo managed the feat. Taking the young lion into the sunshine he massaged it until it showed signs of life. Milk administered in the regulation fashion with a bottle and nipple revived the cub further. Repeated sunbaths and cod liver oil were added to the treatment and at last reports the future monarch of the circus was growing normally.

NEAR OLD SHANGHAI

**"When the wind was
in the rice fields
And the sun was
droppin' low—"**

Ewing Galloway



Ewing Galloway

OUTSIDE THE WALL OF JERUSALEM

In the shadow of the ancient wall of Jerusalem a brisk trade in watermelons is carried on. They are said to grow as well in Palestine as in Georgia.

WHERE THE EUCALYPTUS GROWS

The woodsmen in the picture at the right are working among giant eucalyptus trees of Australia, from which oil and gum are obtained for use in medicines. The huge trees have from ancient times been connected with healing, indirectly as well as directly. It is said that they were planted in the Roman Campagna to absorb surplus water that otherwise would have formed malarial swamps.

Keystone

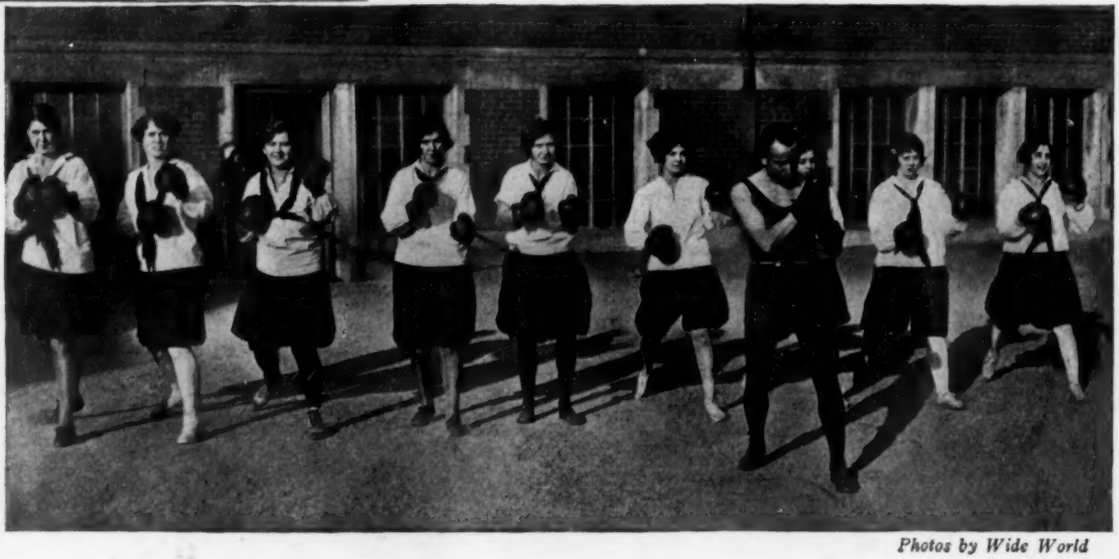
CALIFORNIA FOLK RIDE DOWN TO THE SEA ON HORSES to reach the best surf for fishing and boating.

A LEAP TO SAFETY

Children from several New York public schools looked on while a fireman jumped into a net from the windows of a building. The demonstration of fire drills and life-saving methods was designed to impress the children with the ease and efficiency with which they may be rescued in an emergency.

GIRLS PUT ON THE GLOVES

These students appear to be storing up capacity for a real wallop if they should ever need it. Meanwhile they are acquiring strong muscles and good lung capacity by regular instruction in boxing.



Photos by Wide World

Pacific and Atlantic

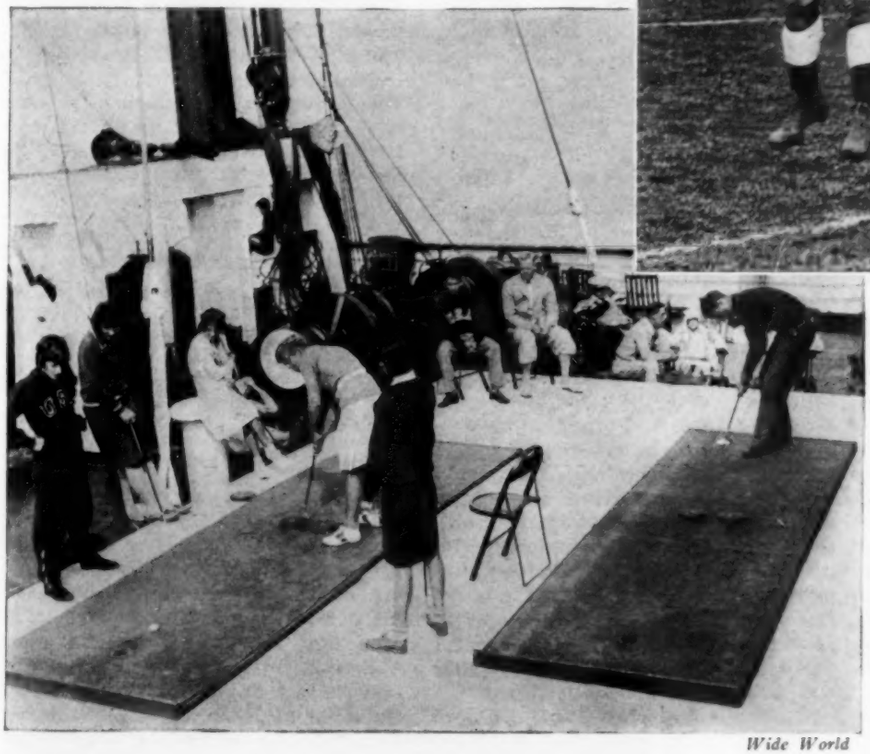
DEVELOPING CIVIC PRIDE

The Monday morning appearance of public parks would be vastly improved if all citizens had the civic conscience of these New York youngsters who are starting a clean-up campaign in Central Park.

USING THEIR HEADS

More than one kind of headwork is necessary in playing soccer, this remarkable action picture shows. The players are competing for the French national soccer cup at the Colombes Stadium, near Paris.

Pacific and Atlantic



Wide World

DECK GOLF

Following the little white ball on shipboard amused the devotees of golf among members of the American Olympic teams on their recent trip overseas and back.

Questions *and* Answers

If you have a question relating to health, write to "Questions and Answers," Hygeia, enclosing a two-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed.

Wants Serum to Help Him Grow Taller

To the Editor:—Can you inform me if there is a serum that will stimulate growth? Has this serum been tested sufficiently long to make its use safe? Would you advise its use in the case of a 16 year old boy who wants to be taller? He is now slightly over 6 feet. His mother is 5 feet 4 inches, and his father is 6 feet in height.

R. B., Florida.

Answer.—No serum or other medicine is known that will materially increase height.

Mucus-Forming Foods

To the Editor:—What is your opinion concerning mucus-forming foods causing or aggravating diseased tonsils and adenoids in children? What foods are classed as such? Does chewing gum have any effect upon this? What effect has eating fruit in these cases?

E. W. P., Texas.

Answer.—Mucin, secreted by the mucous glands, is a protective product. The skin of the frog contains numerous such glands, and the mucin prevents the skin from drying too rapidly. Along the alimentary canal it is associated with many different enzymes, but mucin itself has no digestive action. It protects the lining of the alimentary canal from irritating agents and facilitates the movement of food and excreta. Its secretion is determined somewhat by the general glandular activity. However, if an irritant of any kind is administered, there is an immediate protective outpouring of mucus. As the only stimuli to its production are irritant chemicals (alcohol, strong cathartics, destructive poisons, heavy metals), so the only foods that would produce it are irritating foods.

Mucus appears clinically in significant quantities in mucous colitis and alcoholic gastritis. Raw fruits, raw vegetables, especially of the cabbage family, and cellulose products (bran) irritate the bowel in colitis, and may produce mucus.

There is no relationship of the foods to aggravation of tonsil and adenoid disease. Chewing gum only stimulates the flow of saliva, which contains considerable mucus.

Heart Murmurs

To the Editor:—Three years ago I had influenza and was sick two weeks with it. After I was up, a doctor examined my heart and said the valves had become thickened and did not close properly and that I had a slight murmur and would have to take care of myself. Six months later, we moved to another city. My heart was much better. It did not beat fast any longer, and I was not bothered with shortness of breath. I had my heart examined again, and the doctor said I had no organic trouble, only a slight functional murmur. My heart seems fine now, and I am never even conscious of its beating. I wish I knew if it were all right organically. How can I find out? Recently I heard a lecture on angina pectoris. The speaker said that in angina pectoris there was pain in the heart and down the left arm. When I got up from influenza three years ago I had occasional pain in my heart for a week. Will you please tell me what angina pectoris is?

A. C. A., Texas.

Answer.—It is impossible to make a positive statement in the absence of a personal examination. It is well known that distinct murmurs indicating even organic troubles sometimes disappear. Whether or not the murmur in this case was organic or functional, we cannot say. The right thing has been done in consulting a competent physician.

Angina pectoris is defined as a severe pain radiating from the region of the heart to the left shoulder and down the arm, accompanied by a sense of cardiac oppression and often the apprehension of immediate death. It is thought to be due in most cases to spasm of the coronary artery, the artery that supplies the heart with blood. It ranges all the way from a mere sense of oppression to an excruciating pain and is not always due to heart disease.

Brands of Cod Liver Oil; Raw Vegetables

To the Editor.—1. Why is there so much difference in the price of various brands of cod liver oil? Which are the best brands to use? How is the layman to know if certain brands contain vitamin D? 2. In giving raw vegetables to young children in sandwiches, is there a definite cause for producing worms?

M. D. G., Canada.

Answer.—1. The council on pharmacy and chemistry of the American Medical Association has accepted the following brands of cod liver oil as suitable for admission to the advertising columns of the publications of the American Medical Association: Mead's Cod Liver Oil, Nason's Palatable Norwegian Cod Liver Oil, Patch's Flavored Cod Liver Oil, Parke, Davis Cod Liver Oil, Squibb's Cod Liver Oil, Maltine with Cod Liver Oil and Oscodal Tablets.

The firms dealing in these brands have furnished evidence that their product contains satisfactory amounts of vitamin D.

2. Clean, carefully washed, fresh vegetables, the outsides of which have been carefully removed, can be eaten with extremely small likelihood of conveying infestation with intestinal parasites.

Goiter and Pimples

To the Editor:—I should like to know whether the poison thrown off by a goiter ever causes pimples on the skin. I have had a goiter for five years. I read in Dr. Bobo's book on goiter that a goiter threw off poison. These pimples usually last three or four days. They leave a brown spot.

V. F., Kansas.

Answer.—No evidence exists that the secretion from goiter causes pimples on the skin. Certain medicines administered to control goiter might cause such pimples. It is true that the thyroid gland does elaborate a secretion that has a toxic effect but it would not act in the way mentioned.

Liver as a Medicine

To the Editor:—Recently I have read much about liver as a medicine. Is there real value in it? My blood shows up well in tests but I lack weight and tire easily.
W. A. P., Ohio.

Answer.—Recent researches have apparently proved that liver is the most valuable medicine yet found for the treatment of pernicious anemia, and for some cases of other types of anemia.

Receding Gums

To the Editor:—What causes receding of the gums and is there any treatment to benefit or prevent the condition?
W. T. B., Jr., Louisiana.

Answer.—There are various causes of receding gums. The most common is the formation of tartar around the necks of teeth. Such formations irritate the gums, and unless the tartar is removed and the necks of teeth polished and kept clean, the gums will continue to recede.

Another cause resides in the overhanging margins of fillings or edges of crowns. Such defects should be removed.

A crowded condition of teeth causing them to overlap is a frequent cause of receding gums. This is a most difficult condition to correct.

Frequently the gums around the six or eight front teeth recede for no apparent reason. Various reasons have been given as the cause of this condition. At the present time we are not certain what causes this condition or how to correct it.

One of the most common causes of gum recession is faulty contacts. Each tooth should touch its neighbor tightly. A thread passed between any two teeth should snap through. Too much space at these points permits food to pack between the teeth and eventually injures the gums and causes them to recede.

There are other causes of gum recession but the foregoing are the most common.

Pruritus Ani

To the Editor:—Please send me a diet list for the cure of pruritus ani?
J. R. D., Indiana.

Answer.—Pruritus is a symptom of a great variety of conditions, some of which are local and some systemic. Of course when the trouble is distinctly due to a systemic disease, such as diabetes, liver and heart lesions, gout or rheumatism, the remedy lies in the cure of the systemic condition. When it is a local trouble of the skin about the anus, relief is obtained by the application of suitable remedies prescribed by a physician.

A recent textbook on diseases of the rectum, anus and colon discusses the dietary causes of pruritus, as follows: "Lazy persons who live an irregular life, constantly overfeed and consume rich food plastered with condiments are frequent sufferers from itching of the skin, particularly in the perianal region, because their manner of living is conducive to circulatory engorgement and to sensitive, congested mucous membranes that secrete an overabundance of mucus, which seeps out and irritates the integument. Lobsters, crabs, snails, scallops, oysters, clams and certain fish frequently cause general or local itching if eaten unsound or eaten often in liberal amounts, for they possess a toxin that is annoying or dangerous to persons having an idiosyncrasy for it. Pruritus and skin, gastro-intestinal and other disturbances are occasionally caused by tomatoes, strawberries, oatmeal, buckwheat cakes and other foods not harmful to the average person."

From this statement it is obvious that the important thing in the way of diet is to refrain from such foods as are found to be followed by itching. No particular food materials have any curative effect on pruritus. A diet of easily digested, simple food just sufficient in amount to maintain a good bodily condition is the best diet for one who suffers in this way.

Granulated Eyelids

To the Editor:—Are granulated eyelids and conjunctivitis infectious? What causes this condition and can it be cured or improved? The person who is having this trouble with her eyes is almost unbalanced over it; to me it does not seem so bad because her eyes look almost normal. She will not permit relatives or friends to come to her home because she is afraid some one will get the same thing.
M. I. S., Illinois.

Answer.—The condition of granulated eyelids is not contagious or infectious in the sense that it can be transmitted to others except by direct contact and then only in certain limited cases. As a rule, granulated eyelids are accompanied by a certain amount of conjunctivitis (inflammation of the lining membrane of the eyelids). The cause of granulated eyelids is not always clear, but it may be due to a mild infection or it may be due to some systemic disorder exactly as is dandruff, to which the condition is somewhat allied.

It is believed that the inflammation of the lids is aggravated or maintained by the necessity for glasses or by an imbalance of the muscles that move the eyeballs. The condition is curable in practically all cases, and it is suggested that the patient consult her oculist before it becomes so chronic as to cause some lid deformity.

Goiter

To the Editor:—What is the first symptom of goiter, and what is the best treatment for it in its early stages?
W. S. C., Virginia.

Answer.—Goiter is usually first noticed by an increase in the size of the neck. There are other cases in which the goiter enlarges chiefly at the lower part in such a way as not to be visible externally; in these cases the first evidence may be that produced by the constitutional effect of the abnormal gland, usually rapid pulse and palpitation.

Blames Fruit for Discomfort

To the Editor:—Why does eating fruit cause a burning sensation in my mouth and stomach? If I eat it for several days I get severe headaches. I thought fruit was good for everybody, but last winter I went to a doctor for my headaches and he told me to quit fruit. It did help and several times since I have tried fruits, for I crave them, but always I get the same results. Greens agree with me.
C. P., Ohio.

Answer.—It is not possible to explain correctly the reason for fruit causing a burning sensation in mouth and stomach and its relation to headaches. It may be that the person is sensitive to one of the fruits that she is eating; or its presence may increase the irritation in the colon, making her more constipated with the concomitant headache; or it may be that the eating of the fruit is only a circumstance in some other more serious condition. The inquirer should have a thorough physical examination.

Thorium-X

To the Editor:—I am much interested in the treatment of psoriasis, and I have heard that a preparation called Thorium-X is being used in Germany with good success, but I can gain no information as to what the preparation really is. This information would be greatly appreciated as we should like to try it in our clinic.
M. L. L., Indiana.

Answer.—One of the leading dermatologists in this country, whose standard textbook has just been published in a new edition, does not approve of the use of any radium or thorium compounds in the treatment of psoriasis. Sometimes they produce apparent good effects, but the bad effects that come

from exposures are so uncontrollable that it is not wise to take the risk of harm in cases in which the disease treated is not a menace to life or good health.

Dislikes Milk

To the Editor:—I dislike milk very much. Every time I take it I am sick. Do you think one glass a day would be enough? I am 21 years old. Is milk constipating? Could I take milk any other way, such as in puddings or broths? Does it ever cause one's face to break out? R. H. E., Maine.

Answer.—There are a few people in the world to whom the use of milk is obnoxious, though the number is small. When, as in this case, milk does not produce bad effects but is disliked because of its taste, it can be used in soups, puddings, ice cream, cream toast and a variety of ways. Milk is constipating only when taken as almost the sole article of diet, as sometimes happens. There is so little waste or refuse that bowel movement is not stimulated.

It is conceivable that one might have such an idiosyncrasy toward milk as would produce an eruption on the face but it is most uncommon.

Death by Electrocution Painless

To the Editor:—It is frequently said that electrocution is painless because the current travels faster than the nervous impulse. Have the rates of the two been scientifically determined, so that a comparison is possible?

W. N. G., Pennsylvania.

Answer.—The nerve impulse in man travels about 328 feet a second and electricity travels at the speed of light, about 186,000 miles a second. That death from electrocution is painless is best proved by the testimony of persons that have been rendered unconscious by contact with high tension wires and then have been resuscitated. They universally testify that they experienced no pain.

Since it is an established fact that the respiratory center is paralyzed instantly by high tension currents, it is likely that every center in the nervous system is also paralyzed, which accounts for the immediate loss of consciousness and absence of pain.

Ultimate death from high tension currents is due to fibrillation of the heart. When in this condition, the heart stops beating rhythmically and coordinately and does not pump blood. The fibrillation of the heart results in a fall in the blood pressure practically to zero. The fall in blood pressure results in an anemia of the brain which, if present for several minutes, permanently abolishes the activity of the brain.

If the current has not caused the heart to fibrillate, which is frequently the case in accidental electrocution, but not in the case of electrocution of criminals because of the method used, the person can be resuscitated as a rule by artificial respiration. This shows that in most cases of accidental electrocution the central nervous system is not irreparably damaged, but can be resuscitated after a time (from eight minutes to two hours), if it is kept supplied by means of artificial respiration with oxygenated blood. Strong electric current if applied for a long time causes irreparable damage to the body tissues.

Iodized Salt

To the Editor:—Will you please give me information concerning the use of iodized salt.

A. G., Nebraska.

Answer.—Iodized salt is used extensively in some regions; in the state of Michigan its use is recommended by the state board of health. There is difference of opinion as to whether the minute doses of iodine that are obtained when iodized salt is used on the table result in harm to persons already afflicted with goiter. Cases in which this happens are probably rare, but the adult should take iodine only under the direction of a physician and in tablet form so that the exact amount taken can be determined.

Sex Hygiene for Boys and Girls

To the Editor:—Please tell me what books and other literature you would consider best adapted to be used by a men's and women's bible class, in helping guide young boys and girls through the period of the awakening of their sex faculties?

H. B. C., Delaware.

Answer.—The best way to instruct boys and girls on matters of sex hygiene is through the parent. Much the most effective and safest way of conveying such information is through the father or mother talking to the individual boy or girl alone, never in groups if it can be avoided. Many parents feel incompetent to do this, and in such cases the next best plan is to consult the family doctor if there is one of the right type available. Books and pamphlets can be used to advantage by the parent. Among them is a little series published by the American Medical Association.

Other books that are serviceable for this purpose are the following: "Being Well Born," by Guyer, published by the Bobbs-Merrill Company, Indianapolis, price $1.50; "The Father and His Boy," by Galloway, published by the American Society for Social Hygiene, New York, price $1.00; "The Sex Education of Children," by Forbush, published by Funk & Wagnalls, price, $2.00; "Parents and Sex Education," by Gruenberg, published by the American Society for Social Hygiene, price $1.00; and "Girls and the Mothers of Girls," by Hood, published by Bobbs-Merrill Company, Indianapolis, price $1.50.

Electric Magnetic Blankets

To the Editor:—I want to buy an electric magnetic blanket but do not know which make is the best for arthritis. I have the names of three companies that make electric blankets. Have you ever heard of good results from using them? Do you know of anything better than these blankets?

J. R., New York.

Answer.—The bureau of investigation of the American Medical Association has published a report on Vit-O-Net, one of the electric blankets on the market. These so-called electric magnetic blankets do not influence the body in any way except through the application of local dry heat, exactly the same kind of heat that is obtained from a hot water bag, hot blanket or electric pad. Indeed the blanket is an electric pad on a large scale. It is an expensive method of applying local heat, though sometimes a convenient one. Great care should be exercised in using such a blanket that the wires do not become broken and short circuited. Serious burns have been caused by such devices.

Cases of arthritis are among the puzzling and distressing problems of medicine. Arthritis is sometimes due to a focus of infection the removal of which is followed by the cure of the joint symptoms. In many cases, however, no such focus can be discovered or, if the focus has been discovered and removed, the trouble has obtained such a foothold that it is not arrested. The best suggestion we can make is to seek a competent physician, preferably one who confines his practice to internal diseases, let him make a thorough examination and then follow his advice.

Is Liver Harmful?

To the Editor:—My aunt has pernicious anemia and has been told by her doctor to stop eating liver as it has too much oxalic acid in it. Could this be true?

A. L. H., Nebraska.

Answer.—There is no warrant for the belief that the eating of liver will increase the amount of oxalic acid in the body to any harmful extent.

Ultraviolet Ray Treatments for Eczema

To the Editor:—Are ultraviolet rays the best treatment for eczema? If not, what would you suggest? My physician tells me that ultraviolet ray treatments will cure eczema. Approximately how many treatments are necessary for a case of long standing?

R. M. W., Illinois.

Answer.—Ultraviolet rays are of use in selected cases of eczema, but at present this type of treatment is unquestionably being used much more widely than is justified by its actual value. There is no basis for the sweeping statement that ultraviolet rays will cure eczema, although their use will clear up some cases of this disorder. Without having the opportunity to examine the patient it is impossible to outline the type of treatment that should be employed, as a number of methods are available.

If ultraviolet rays are used the number of treatments necessary for a favorable result varies greatly. In some cases only a few treatments are necessary, while in others a large number may be required. No one but a physician with considerable experience in this field can advise properly in this matter.

Pyloric Stenosis

To the Editor:—My baby boy had pyloric stenosis at 5 weeks of age and died at 11 weeks after the operation. What is the cause of this disorder and is it possible that other children born to me will have the same trouble?

E. R. L., Massachusetts.

Answer.—Pyloric stenosis is a narrowing of the opening that leads from the stomach into the bowel and may be of two sorts. One is so-called organic stenosis, in which there is an actual increase in the amount of the muscle surrounding this opening and the other is spasmodic stenosis, in which the muscle is not increased in amount but for some reason is thrown into persistent spasm. These conditions are not uncommon. The cause is unknown.

It is not known why, in organic stenosis, there is an undue development of muscle surrounding the pyloric opening. The child is born with this condition present.

Babies with spasmodic stenosis frequently recover, especially with proper management in the matter of diet (mother's milk at frequent intervals) and with the use of suitable drugs. In organic stenosis cure by medical means is sometimes impossible and surgical operation has to be done partially to sever the thickened muscular ring at the pyloric opening.

It is not always easy to make a diagnosis between spasmodic and organic stenosis. Many operations for the latter condition have been performed successfully in cases in which the operation is undertaken before the child has become weakened by the constant vomiting and lack of nourishment.

There is little reason to fear that other infants born to the same parents will have this abnormality.

Leakage of the Heart

To the Editor:—Should a girl of 22 who has had a slight leakage of the heart for ten years and who is otherwise in excellent health marry? If so, should she have children or could she bear children without great danger? What mode of living do you recommend for such a person in order to prolong life? What work should I avoid?

I. M., Ohio.

Answer.—Certain heart lesions are a serious menace in case of pregnancy. Others, such as slight leakage of certain valves, are not incompatible with childbearing. Each case has to be decided on its merits after careful physical examination and study of the case by a competent physician. The physician who is consulted in regard to this is the one who should advise about habits of living, working and the like.

Cement Poisoning

To the Editor:—I have what one physician calls cement poisoning, which began more than a year ago while I was working with cement. One of the symptoms is intense itching, especially on the palms and soles. The surface of the skin looks like a burn blister; it peels in the late stage. Attacks occur at intervals of a few days or a few weeks. I have had a tendency to eczema most of my life but have never had anything like this before.

C. W. F., California.

Answer.—The description and history of the case suggest a dermatitis that possibly is precipitated by external irritants but that primarily is of internal origin. If the person has had a tendency toward eczema most of his life, it is probable that his skin is hypersensitive to a large group of irritants. Even in such an instance internal factors are of importance, although their exact nature cannot always be ascertained.

A recurrent dermatitis such as that described requires careful, complete and often prolonged study at the hands of an expert. Without such, at least without seeing the eruption, one would not be justified in making any suggestions as regards diet and other general measures.

A recent study of the medical literature revealed no instance of cement poisoning, but it is not inconceivable that this substance acted as an irritant in provoking an attack in a hypersensitive skin.

Cod Liver Oil and Mineral Oil

To the Editor:—I use cod liver oil to gain weight. I am five feet one inch and weigh only ninety pounds. The adult dose of one brand is one teaspoonful, while of another brand it is three teaspoonfuls. Can you tell me why there is this difference? Is there as much value in one teaspoonful of one brand as in three teaspoonfuls of another? A druggist gave me the impression that the second brand comes from especially fed fish and is better. Does cod liver oil tend to constipate? Is mineral oil a real laxative? I have a fallen colon and a doctor advised mineral oil night and morning but it seems to constipate me.

T. P., Montana.

Answer.—Cod liver oil is valuable for two reasons: its vitamin content, and the calories obtainable from it by the body. The caloric content is practically the same in all cod liver oil, but it is not so easy to state the vitamin value, as vitamins have never been isolated in a pure form that can be weighed or measured. The only means at hand by which vitamin content can be measured is a physiologic one. A determination is made of the smallest amount of food containing the vitamin that will protect animals (usually rats or guinea-pigs) from developing diseases due to vitamin deficiency. In this case the problem is to determine the amount of cod liver oil necessary to prevent rickets in the laboratory animals. Cod liver oil does not constipate.

Mineral oil is not a laxative in the ordinary sense of the word. It does not irritate and is not absorbed from the intestinal tract but passes through unchanged, and mingling with the food residue, produces a soft nonirritating stool.

If a person has been accustomed to taking cathartics to obtain a daily movement and suddenly reverts to mineral oil instead, it is probable that he will not have a natural bowel movement for several days. If, however, heat is applied to the abdomen at night, and, if necessary, a cup of water is taken as an enema, to start the movement, twice a week, he will probably obtain a regular movement daily after two or three weeks' time. The reason for this lapse of time between leaving off cathartics and obtaining a regular bowel movement with mineral oil is that cathartics create a state of spasm in the intestine from the irritation, and it takes a nonirritating regimen to allow it to relax.

Carbolic Acid Burns

To the Editor:—I have occasion to handle concentrated carbolic acid, 90 per cent solution (phenol), twice a month. What would be the best antidote if I should spill any of this on my hands or arms? In case it splashed up into my eyes, what antidote should be used? Would I be blind instantaneously, or would there be time to get help? Five minutes might be needed. Would the acid blind me completely in that time if I washed out my eyes at once with water? I understand alcohol is the proper internal antidote but would that be safe for the eyes, especially denatured alcohol? Would you not advise wearing goggles and rubber gloves? I have been told that the acid would do no harm to the eyes as the tears would neutralize it.

H. O. C., New Jersey.

Answer.—In factories and other places in which phenol is used extensively, reliance is placed on prompt and abundant washing with soap and water, making a thick lather rather than with alcohol or other antidote, according to chemists of the American Medical Association. Phenol is not a true acid. Alcohol is not an effective antidote for internal use and should not be used in the eyes.

For first aid to injury of the eyes with phenol, prompt and abundant flushing of the eye with plain water is probably the best plan. A solution of borax might be used subsequently but it would be still better to consult an oculist as soon as possible. The tears will carry some of the phenol from the eye into the nose through the tear duct and the excess secretion will overflow on the cheek, but the phenol is not neutralized by the tears. A worker with acid should by all means wear rubber gloves and goggles but the fact that they are worn should not lead to any relaxation of caution in handling the phenol.

Fabrics for Children's Clothing

To the Editor:—Are there any materials for children's clothes that allow the ultraviolet rays of the sun to reach the child's body? Would celanese silk be effective?

I. A. W., New York.

Answer.—According to measurements made some time ago by Dr. Bovie, the ultraviolet transmitted by a so-called ultraviolet transmitting fabric passed only through the meshes. The U. S. Bureau of Standards found that only from 5 to 10 per cent of such rays are transmitted through the thread of such fabrics, especially when they are dyed. When one considers that the thread occupies from 95 to 99 per cent of the total area the amount of light transmitted is insignificant. It is apparent that in order to obtain beneficial therapeutic results an open-weave fabric should be worn. Admitting this fact, it is obvious that it makes but little difference whether the thread is of cellulose acetate, cotton, wool or silk.

Goiter

To the Editor:—I have had a goiter for several years. Two years ago I took treatments with iodine, which was rubbed on the neck, but I stopped, as I could not afford them. During the two years that have passed, my health has become very poor. Last winter another doctor gave me a tonic for the blood and advised me to have my tonsils removed. Is there anything that will help the tonsils besides an operation? I have heard that white iodine will cure goiter in some cases. Is this true? What is white iodine? What medicinal value have dandelions?

G. S., Illinois.

Answer.—It is impossible to determine the nature and extent of a goiter without an examination. Iodine, which is usually given internally in one form or another, may relieve the symptoms of the goiter and arrest the growth for a time, but it must not be taken except on a physician's orders. In many cases surgical removal is the only satisfactory treatment.

Tincture of iodine is a solution of the element iodine in alcohol. It irritates the skin of many persons, a reaction that explains its usefulness in many disease conditions. So-called white or colorless iodine is merely a combination of potassium and ammonium iodides and does not contain free iodine. Dandelion has little medicinal value.

Infant Feeding

To the Editor:—Can you recommend a diet for a breast-fed baby? Everything I can find is for a bottle-fed baby. Our baby is 2 months old and I think he should have supplementary feeding in a month or two more. Do you publish a weight chart?

C. E. P., Kansas.

Answer.—If the mother is nursing the baby at 2 months, he should have nothing more for some weeks yet, unless he persistently fails to gain in weight. Mother's milk is so enormously important to every baby that nothing should be done to interfere with his obtaining all that he needs. If the amount is absolutely insufficient and cannot be increased by proper treatment of the mother then supplementary feeding may be necessary. It should not be undertaken, however, except under the direction of a good physician.

HYGEIA has published a pamphlet on mother's milk. The pamphlet also discusses the use of artificial feeding when mother's milk has failed. It sells for 10 cents a copy. A good book on the care of the baby is "The Nursery Guide," by Dr. Louis Sauer, published by C. V. Mosby Company, St. Louis.

The pamphlet on mother's milk contains a graph showing the proper gain in weight for a baby during the first year. The American Medical Association also publishes an anthropometric chart showing the weight, height and other measurements of the average normal child from 6 months to 4 years. It should be emphasized that few children follow with absolute exactness such a curve of increase in weight. Departures from so-called normal average measurements from time to time are not incompatible with good health.

Tuberculosis

To the Editor:—My daughter, a senior at college, became ill December 1 with an extensive pleurisy. The college physician stated that the x-ray showed that she had been infected with tuberculosis four or five years ago, that it was of a slow nature, and gave us every hope of her ultimate recovery. Her temperature ran anywhere from 99 to 99.4 over a period of four months. Does this mean that the disturbance was very active? She has never had a cough. She has gained an average of 1 pound, 2 ounces each week since she has been in bed. Is it safe to exercise some now? Can you refer me to some good work for the convalescent from tuberculosis? How should she proceed to build up her strength and conduct herself to avoid another breakdown?

M. C. F., Ohio.

Answer.—It is generally believed that pleurisies, both the dry type and that associated with an accumulation of fluid, are due to tuberculous infection. The condition may be due to an actual lung infection but frequently pleurisy is the primary disease. The illness apparently was not very active if one judges by the temperature curve. Treatment of this disease is similar to that of an actual lung tuberculosis. Absolute rest is imperative until the pulse and temperature have been normal for some time. As a general rule, the patient should not take exercise while she still has fever. Weight gain alone is not a good criterion upon which to base a change in treatment.

Regular hours, regular meals, fresh air and constant medical guidance will do much to prevent a relapse. A small volume by Dr. John Potts on "Getting Well and Staying Well," published by the C. V. Mosby Company, St. Louis, is recommended as a good work.